

Celebrating 25 years of connecting teachers and technology.

Interactive **Learn** Explore Activities
Network Speakers
Understanding
International Common Core Science
High School Software Math
Project-based Fun Hands-On
Learning Excitement
Commitment
Quality Skills
Students Standards
Community
Vision Speakers
Relevance New Ideas
Online Learning
Courses Strategies
Seminars Interactive
Content Impact **CAS** Experience
Student Achievement Educator Resources
Inspiration Apps Improvement Support
Understanding Connect Assessment

Middle Grades Inspiration
Leadership Professional Development
Strategies **STEM** International
Knowledge Community
Best Practice
Workshops
High School
Assessment
Improvement **Energize**
Collaboration Lessons Network
Share Special Events College Empower
Math Seminars
Curriculum
Relevance Fun
Collaboration
Online Learning
Insight Science Webinars Leadership
Connect Colleagues Quality
Math Engineering
Activities Science International



Teachers Teaching with Technology™

Professional Development from Texas Instruments

International Conference

March 8-10, 2013

Philadelphia, PA



Interactive Explore Activities
Learn Network Speakers
 Understanding
 International Common Core Science
 High School Software Math
 Project-based Fun Hands-On
 Learning Excitement
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 Improvement Lessons Network
 Collaboration College Empower
 Share Special Events Math Seminars
 Curriculum
 Relevance Fun
 Collaboration
 Online Learning
 Insight Science Webinars Leadership
Connect Colleagues Quality
 Math Engineering
 Activities Science International

Join T³ – Teachers Teaching with Technology™ in celebrating the 25th anniversary of the largest TI event for math and science professional development.

Select from more than 400 high-energy, interactive sessions on the most relevant topics in education, such as Common Core State Standards and Next Generation Science Standards. Take advantage of the CAS Conference-in-a-Conference and Sunday Power Sessions, and don't forget if you've pre-registered for our new ticketed sessions and Administrator Academy offered this year.

We look toward the future by continuing the T³ tradition of providing exceptional professional development opportunities.

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Conference Overview



Select from more than 400 high-energy, interactive sessions on the most relevant topics in education, such as Common Core State Standards and Next Generation Science Standards. Take advantage of the CAS Conference-in-a-Conference and Sunday Power Sessions, and don't forget if you've pre-registered for our new special ticketed sessions and Administrator Academy offered this year.



Celebrating 25 years of connecting teachers and technology

Friday, March 8

Conference Registration 7:00 a.m. - 4:00 p.m.
Opening Session 8:30 - 9:45 a.m.
General Sessions 10:15 a.m. - 5:30 p.m.
Exhibitor Hallway 10:00 a.m. - 6:00 p.m.
Welcome Reception 5:30 - 7:00 p.m.

Saturday, March 9

Conference Registration 7:30 a.m. - 12:00 p.m.
General Sessions 8:00 a.m. - 5:30 p.m.
Exhibitor Hallway 8:00 a.m. - 5:30 p.m.

Sunday, March 10

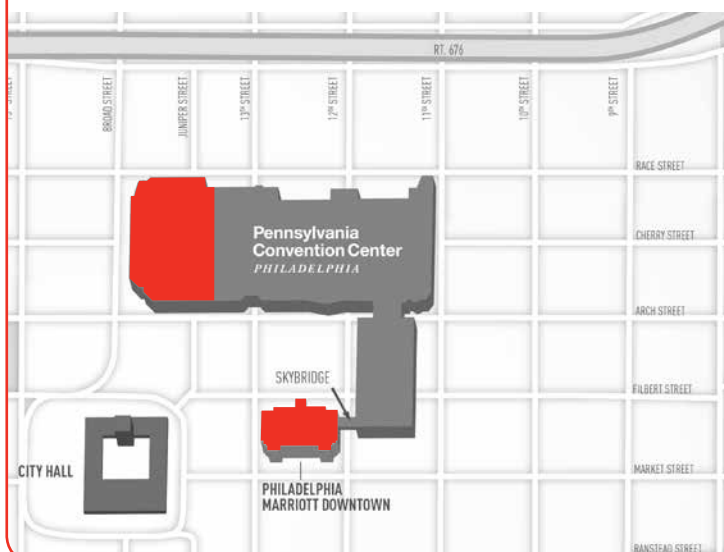
Power Sessions 8:30 - 10:30 a.m.
Closing Session 10:45 - 11:30 a.m.

conference tip

Make a point to get to sessions early to ensure you get a seat. They often fill up quickly.

Important Location Information

The Pennsylvania Convention Center (**Convention Center**) and Philadelphia Marriott Downtown (**Marriott**) will host this year's conference. When planning your conference schedule, please take note of the (**Convention Center**) in red or (**Marriott**) in black specified in the session details. The two locations are about a 15-minute walk from each other, so please plan accordingly.





General Sessions

Saturday, March 9 • 8:00 a.m. - 5:30 p.m.

See the *Session Details* section for in-depth information.

Special Ticketed Sessions

Advance Registration Required



Learn to Lua

8:00 - 11:30 a.m.

Marriott - 5th Floor - Salon I

SLUG Fest: Super Lua User Group

1:00 - 5:00 p.m.

Marriott - 5th Floor - Salon I

STEM Project-Based Learning: Design Basics

1:00 - 5:00 p.m.

Marriott - 5th Floor - Salon I



CAS Conference-in-a-Conference

Saturday, March 9 • All Day

Speakers: Various, sponsored by MEECAS

Marriott - 4th Floor - Franklin 5-9

Advance Registration Preferred

This all-day event features over 30 sessions focused on the usage of Computer Algebra Systems (CAS) as a learning tool. See *Sessions by Subject CAS* in this program.

Example Session Titles Include:

- » CAS in the Algebra I Classroom
- » Modeling Algebraic Structures with CAS
- » Transforming with CAS
- » The Use of CAS Calculators on ACT® Mathematics Exams by Students in CAS-using Schools
- » What Purposes Does Technology Really Play on Standardized Tests and in Classrooms?

conference tip

If you need help, go to the registration desk in the Convention Center or look for the TI staff in red shirts.

Advance Registration Preferred

The experience accumulated in the use of CAS from secondary school makes clear the potential of CAS for supporting high quality mathematics teaching and learning. In this session, Dr. Artigue will illustrate the different facets of CAS potential for mathematics learning, by relying on the collaborative work developed by teachers and researchers in the French and European context for more than two decades.



Closing Session

Sunday, March 10 • 10:45 - 11:30 a.m.

Marriott - 5th Floor - Salon G & H

Mayim Bialik

Actress, Neuroscientist and TI Brand Ambassador

"The Big Bang Theory" actress, real-life scientist and author Mayim Bialik talks about her experience as brand ambassador and spokeswoman for TI-Nspire™ CX math and science learning technology. Bialik earned her B.S. in neuroscience and Hebrew and Jewish studies from the University of California, Los Angeles in 2000, and went on to receive her Ph.D. in neuroscience from UCLA in 2007, specializing in Obsessive-Compulsive Disorder in adolescents with Prader-Willi syndrome.



Grand Prize Drawing: One lucky attendee will receive a special grand prize drawing surprise.

Don't miss the Closing Session to see if you're a winner!



Save the Date

Join us next year in Las Vegas as T³™ kicks off its next 25 years of connecting teachers and technology.



2014 T³ International Conference
March 7-9, 2014
Rio Hotel and Casino
Las Vegas, NV

Visit education.ti.com/go/t3lasvegas.



Conference Schedule



Thursday, March 7

	Time	Location
Registration	5:00 – 9:00 p.m.	Convention Center – Arch Street Foyer

Friday, March 8

	Time	Location
Registration	7:00 a.m. – 4:00 p.m.	Convention Center – Arch Street Foyer
Opening Session	8:30 – 9:45 a.m.	Convention Center – Terrace Ballroom III & IV
Conference Sessions	10:15 a.m. – 5:30 p.m.	Convention Center and Marriott
Exhibitor Hallway	10 a.m. – 6:00 p.m.	Convention Center – Arch Street Foyer
Welcome Reception	5:30 – 7:00 p.m.	Convention Center – Terrace Ballroom III & IV

Saturday, March 9

	Time	Location
Registration	7:30 a.m. – 12 p.m.	Convention Center – Arch Street Foyer
Conference Sessions	8:00 a.m. – 5:30 p.m.	Convention Center and Marriott
Exhibitor Hallway	8:00 a.m. – 5:30 p.m.	Convention Center – Arch Street Foyer

Sunday, March 10

	Time	Location
Power Sessions	8:30 – 10:30 a.m.	Marriott – Salon – A, C, D, F, K, L
Closing Session	10:45 – 11:30 a.m.	Marriott – Salon – G & H

conference tip

Remember to plan for 15 minutes of travel time between the Convention Center and the Marriott.

My Conference Planner



TIME	FRIDAY
7:00 a.m. – 4:00 p.m.	Registration Convention Center – Arch Street Foyer
8:30 – 9:45 a.m.	Opening Session Convention Center – Terrace Ballroom III & IV
10:15 – 11:15 a.m.	
11:30 a.m. – 12:30 p.m.	
12:30 – 1:30 p.m. Lunch	
1:30 – 2:30 p.m.	
2:45 – 4:15 p.m.	
4:30 – 5:30 p.m.	
5:30 – 7:00 p.m.	Welcome Reception Convention Center – Terrace Ballroom III & IV

TIME	SATURDAY
7:30 a.m. – 12 p.m.	Registration Convention Center – Arch Street Foyer
8:00 – 9:30 a.m.	
9:45 – 10:45 a.m.	
11:00 a.m. – 12:00 p.m.	
12:00 – 1:00 p.m. Lunch	
1:00 – 2:00 p.m.	
2:15 – 3:45 p.m.	
4:00 – 5:30 p.m.	

TIME	SUNDAY
8:30 – 10:30 a.m.	
10:45 – 11:30 a.m.	Closing Session Marriott – Salon G & H

~~~~~  
You can be the first to get your hands on the newest TI technology at the interactive sessions below.

**Marriott** - 4th Floor - Franklin Hall 1 & 2

## conference tip

## TI-Npsire™ Apps for iPad® Sessions

**Convention Center** - 100 Level - Room 114

***Plus, Come Check Out This Special Panel Session!***

**Time:** Saturday, March 9 • 12:00 - 1:00 p.m.

**Convention Center** - 100 Level - Room: 114

## TI-Nspire App for iPad: A look into our classrooms

So, your school decided to implement iPads. Now what? Come to this panel discussion and find out what we learned about using the TI-Nspire App for iPad in our math classes. Learn practical classroom uses of the TI-Nspire App and hear how our students reacted to literally “touching the math.” Hear how we leveraged the available digital content to engage our students and pick up tips and tricks to help you effectively use the TI-Nspire App for iPad in your classroom.

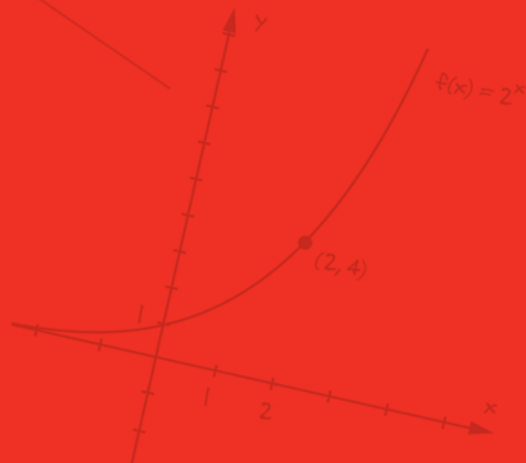
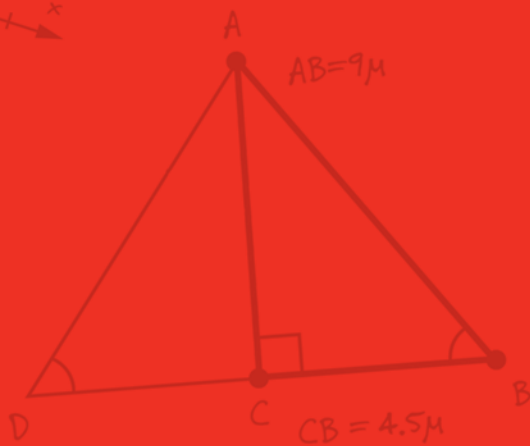
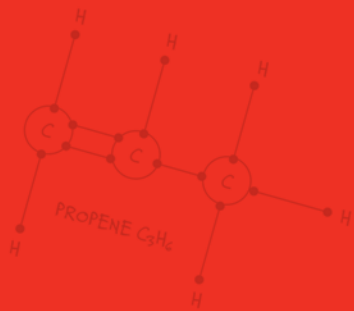
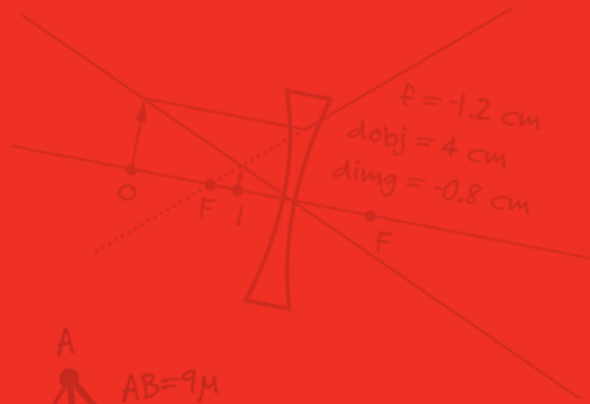
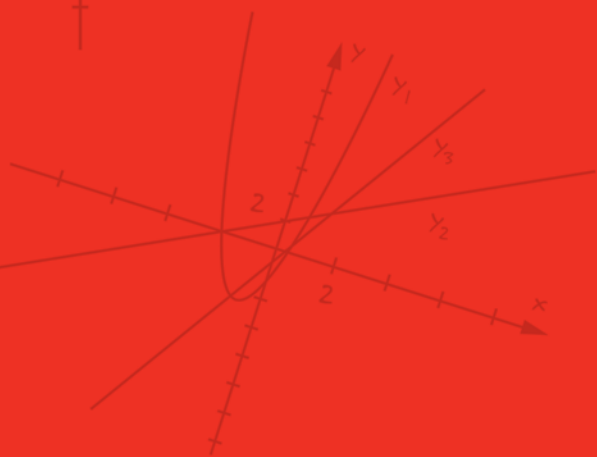
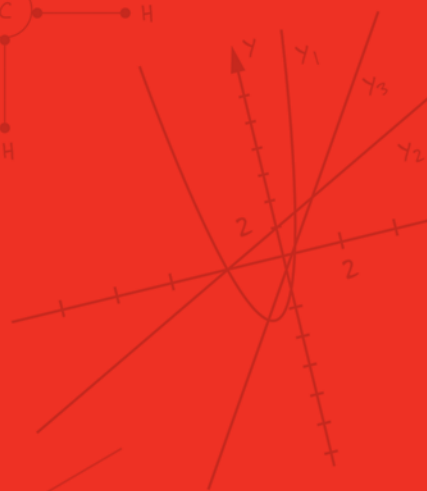
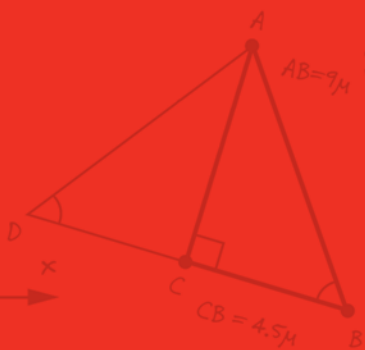
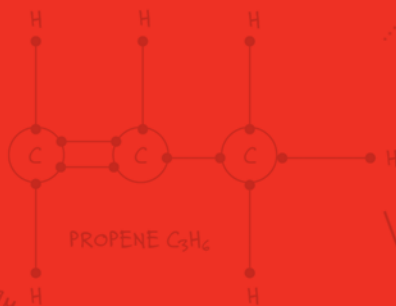
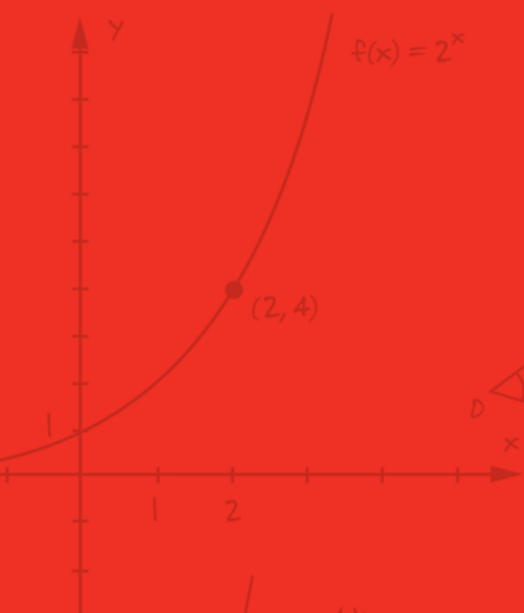
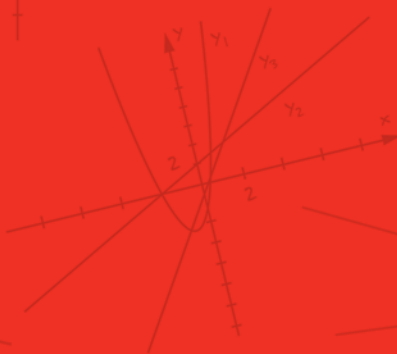
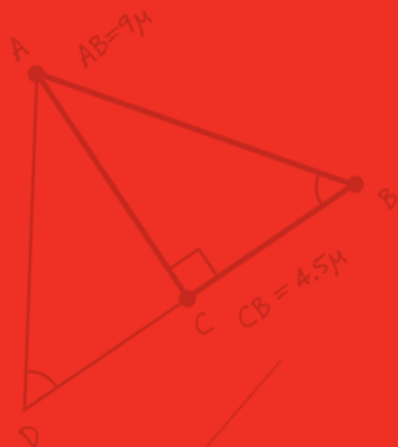
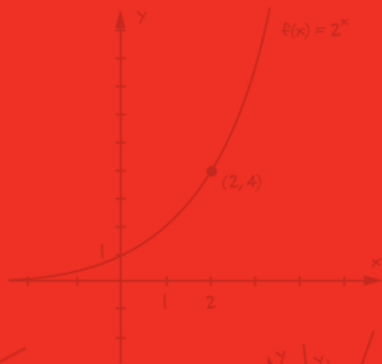
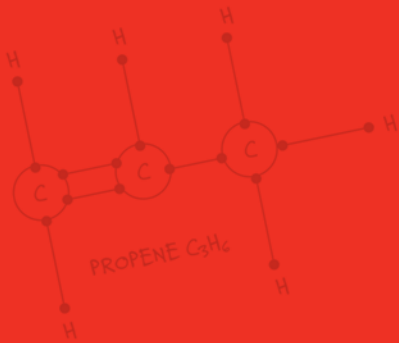
**Presenters:** Sherri Abel, Legacy Charter School, SC

Stephanie Ogden, L&N STEM Academy, TN

**Moderated by:** Mayim Bialik, Actress, Scientist and TI Brand Ambassador



# Sessions by Subject



# Sessions by Subject

| No. | Title | Day | Time | Presenter | Location | Room |
|-----|-------|-----|------|-----------|----------|------|
|-----|-------|-----|------|-----------|----------|------|

## ADMINISTRATOR

|     |                                                                                                                                   |          |                         |                 |                 |        |
|-----|-----------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|-----------------|-----------------|--------|
| 113 | Changing Opportunities, Changing Lives with the TI MathForward™ Program                                                           | Friday   | 1:30 p.m. - 2:30 p.m.   | Alicia Page     | Convention Ctr. | 122 B  |
| 190 | Field Trip Magic and Scavenger Hunts: Using the TI-Nspire™ Handheld and the TI-Nspire™ Navigator™ System to Keep Students Engaged | Friday   | 4:30 p.m. - 5:30 p.m.   | Carrie Wilson   | Convention Ctr. | 119 A  |
| 217 | The Business of You: Double Your Productivity, Reduce Your Stress and Balance Your Life                                           | Saturday | 8:00 a.m. - 9:30 a.m.   | Steve McClatchy | Convention Ctr. | 110 AB |
| 262 | (Infusing TI-Nspire™ Family) + (STEM Education) = Bridging the Gap for Educational Leaders                                        | Saturday | 9:45 a.m. - 10:45 a.m.  | Edward Chaves   | Convention Ctr. | 110 AB |
| 307 | Integrating Math and Science Using TI-Nspire™ Technology                                                                          | Saturday | 11:00 a.m. - 12:00 p.m. | Leann Iacuone   | Convention Ctr. | 110 AB |
| 397 | Let's Explore the TI-Nspire™ Handheld                                                                                             | Saturday | 2:15 p.m. - 3:45 p.m.   | Murney Bell     | Convention Ctr. | 110 AB |
| 442 | Spicing Up Your Constructions: Piecewise Functions, Small Programs and Other Little Tricks                                        | Saturday | 4:00 p.m. - 5:30 p.m.   | Adam Pennell    | Convention Ctr. | 110 AB |

## ALGEBRA I

|     |                                                                                                                                                |        |                         |                       |                 |            |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------------------|-----------------------|-----------------|------------|
| 19  | Using the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature for A Modeling Approach to Algebra                                       | Friday | 10:15 a.m. - 11:15 a.m. | Judith Olson          | Convention Ctr. | 119 B      |
| 21  | Algebra and More with the Common Core                                                                                                          | Friday | 10:15 a.m. - 11:15 a.m. | Heather Riddle        | Convention Ctr. | 120 B      |
| 22  | Experience Common Core State Standards Using the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature                                   | Friday | 10:15 a.m. - 11:15 a.m. | Jean Annette Jones    | Convention Ctr. | 120 C      |
| 23  | The TI-Nspire™ Handheld and the Algebra CCSS                                                                                                   | Friday | 10:15 a.m. - 11:15 a.m. | Pam Harris            | Convention Ctr. | 121 A      |
| 48  | Exploring Population Growth Using the TI-Nspire™ CX Handheld and the TI-84 Plus Silver Edition Graphing Calculator                             | Friday | 11:30 a.m. - 12:30 p.m. | Lori Edwards          | Convention Ctr. | 112 B      |
| 61  | Using the TI-Nspire™ CAS Handheld to Master Trig Ratios                                                                                        | Friday | 11:30 a.m. - 12:30 p.m. | Allister Wadden       | Convention Ctr. | 119 A      |
| 64  | Physical Science + Algebra 1 + PBL + TI-Nspire™ CAS Handheld = A New Tech Way to Teach and Learn                                               | Friday | 11:30 a.m. - 12:30 p.m. | Sheryl Edwards        | Convention Ctr. | 120 B      |
| 77  | Never Programmed? No Problem! Write <i>Prompt-Store-Display</i> Programs for Algebra Using the TI-84 Plus C Silver Edition Graphing Calculator | Friday | 11:30 a.m. - 12:30 p.m. | Jim Haskins           | Marriott        | Franklin 2 |
| 81  | Grouping, Home Screen Sequencing, Web Plots and Other TI-84 Plus Silver Edition Graphing Calculator Strategies                                 | Friday | 11:30 a.m. - 12:30 p.m. | Johnny Ashurst        | Marriott        | Franklin 8 |
| 107 | Solving Systems Using the TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System                                                             | Friday | 1:30 p.m. - 2:30 p.m.   | Julie Speelman        | Convention Ctr. | 120 B      |
| 108 | Getting Started with the TI-Nspire™ Handheld in Your Mathematics Classroom                                                                     | Friday | 1:30 p.m. - 2:30 p.m.   | Ruth Casey            | Convention Ctr. | 120 C      |
| 109 | Okay, I Have TI-Nspire™ Handhelds and the TI-Nspire™ Navigator™ System. Now What?                                                              | Friday | 1:30 p.m. - 2:30 p.m.   | Marti Hoyt            | Convention Ctr. | 121 A      |
| 124 | Texas Instruments Technology and the Common Core for Algebra and Geometry                                                                      | Friday | 1:30 p.m. - 2:30 p.m.   | Linda Apicella        | Marriott        | Franklin 8 |
| 150 | There's an App for That: Problem Solving in Algebra 1 Using the TI-Nspire™ CAS Handheld                                                        | Friday | 2:45 p.m. - 4:15 p.m.   | David Reeves          | Convention Ctr. | 120 B      |
| 151 | Introduction to Data Collection for Algebra Classes Using Vernier® Temperature Probes and CBR 2™ Motion Detectors                              | Friday | 2:45 p.m. - 4:15 p.m.   | Katie Allard-Martinez | Convention Ctr. | 120 C      |
| 152 | Quick Poll with the TI-Nspire™ Navigator™ System is not Just for Formative Assessments (Reprise)                                               | Friday | 2:45 p.m. - 4:15 p.m.   | Doug Roberts          | Convention Ctr. | 121 A      |

# Sessions by Subject

| No.              | Title                                                                                                                                                         | Day      | Time                    | Presenter             | Location        | Room       |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|-----------------------|-----------------|------------|
| <b>ALGEBRA I</b> |                                                                                                                                                               |          |                         |                       |                 |            |
| 167              | Pinky Pig and Farmer Faye Use the TI-84 Plus Silver Edition Graphing Calculator to Explore Quadratic Functions                                                | Friday   | 2:45 p.m. - 4:15 p.m.   | Becky Caison          | Marriott        | Franklin 8 |
| 193              | Ready to Use Activities to Nspire Your Students                                                                                                               | Friday   | 4:30 p.m. - 5:30 p.m.   | Della Highman         | Convention Ctr. | 120 B      |
| 194              | Holy Shift! Shifting your Algebra Instructional Style.                                                                                                        | Friday   | 4:30 p.m. - 5:30 p.m.   | Lindsay Miller        | Convention Ctr. | 120 C      |
| 195              | The TI-Nspire™ Navigator™ System in Your Classroom: How Can it Benefit You and Your Students?                                                                 | Friday   | 4:30 p.m. - 5:30 p.m.   | Scott Montgomery      | Convention Ctr. | 121 A      |
| 205              | TI-84 Plus C Silver Edition Graphing Calculator: Bright, Hi-Res <i>Color</i> and so much more                                                                 | Friday   | 4:30 p.m. - 5:30 p.m.   | Margo Mankus          | Marriott        | Franklin 1 |
| 206              | Fish Tales: Mathematical Modeling with the TI-84 Plus C Silver Edition Graphing Calculator                                                                    | Friday   | 4:30 p.m. - 5:30 p.m.   | Elizabeth Gasque      | Marriott        | Franklin 2 |
| 210              | Helping Struggling Algebra Students with the TI-84 Plus Silver Edition Graphing Calculator and the SMART Notebook                                             | Friday   | 4:30 p.m. - 5:30 p.m.   | Sonja Barrera         | Marriott        | Franklin 8 |
| 236              | Rethinking Fractions: Implications for Teaching and Learning Algebra                                                                                          | Saturday | 8:00 a.m. - 9:30 a.m.   | Gail Burrill          | Convention Ctr. | 120 B      |
| 237              | Nspiring Linearity in the Everyday Student                                                                                                                    | Saturday | 8:00 a.m. - 9:30 a.m.   | Patrick Sanchez       | Convention Ctr. | 120 C      |
| 238              | I've Turned It On, Now What? Getting Started with the TI-Nspire™ Handheld.                                                                                    | Saturday | 8:00 a.m. - 9:30 a.m.   | Sherry Everding       | Convention Ctr. | 121 A      |
| 281              | Using the TI-Nspire™ Handheld to Teach the CCSS                                                                                                               | Saturday | 9:45 a.m. - 10:45 a.m.  | Terri Faitel          | Convention Ctr. | 120 B      |
| 282              | Using the TI-Nspire™ Navigator™ System to Improve Student Achievement in a Community College Classroom                                                        | Saturday | 9:45 a.m. - 10:45 a.m.  | Dave Usinski          | Convention Ctr. | 120 C      |
| 283              | Using the TI-Nspire™ Handheld to Investigate Concepts Found in Algebra I                                                                                      | Saturday | 9:45 a.m. - 10:45 a.m.  | Edward DePeau         | Convention Ctr. | 121 A      |
| 323              | Your TI-84 Plus C Silver Edition Graphing Calculator Classroom: Preparing and Presenting Using TI Connect™ Software, TI-SmartView™ Emulator Software and More | Saturday | 11:00 a.m. - 12:00 p.m. | Margo Mankus          | Convention Ctr. | 119 A      |
| 327              | Beyond Rote: Using the TI-Nspire™ Navigator™ System for Rich, Higher-level Assessment in Algebra I                                                            | Saturday | 11:00 a.m. - 12:00 p.m. | Lisa Simonick         | Convention Ctr. | 120 C      |
| 328              | CCSS and the TI-Nspire™ Handheld                                                                                                                              | Saturday | 11:00 a.m. - 12:00 p.m. | Michael Houston       | Convention Ctr. | 121 A      |
| 371              | Enhancing Student Understanding Through TI-73 Explorer™ Graphing Calculator Applications                                                                      | Saturday | 1:00 p.m. - 2:00 p.m.   | Causandra Bradley     | Convention Ctr. | 120 B      |
| 372              | Using TI-Nspire™ Technology to Easily Create Parallel Tasks for Your Algebra Students                                                                         | Saturday | 1:00 p.m. - 2:00 p.m.   | Kimberly Tarnowieckyi | Convention Ctr. | 120 C      |
| 373              | Fish Tales: Mathematical Modeling with the TI-Nspire™ Handheld                                                                                                | Saturday | 1:00 p.m. - 2:00 p.m.   | Elizabeth Gasque      | Convention Ctr. | 121 A      |
| 395              | Pattern Building in Algebra                                                                                                                                   | Saturday | 1:00 p.m. - 2:00 p.m.   | Ed Laughbaum          | Marriott        | Salon J    |
| 416              | TI-Nspire™ Applications for the Common Core                                                                                                                   | Saturday | 2:15 p.m. - 3:45 p.m.   | Howard Stern          | Convention Ctr. | 120 B      |
| 417              | Activate with Active Math Boxes                                                                                                                               | Saturday | 2:15 p.m. - 3:45 p.m.   | Philip Magner         | Convention Ctr. | 120 C      |
| 418              | Angry Birds® and Other Games to Promote Learning in the Algebra Classroom                                                                                     | Saturday | 2:15 p.m. - 3:45 p.m.   | Lauren Jensen         | Convention Ctr. | 121 A      |
| 428              | TI-84 Plus C Silver Edition Graphing Calculator: Bright, Hi-Res <i>Color</i> and so much more                                                                 | Saturday | 2:15 p.m. - 3:45 p.m.   | Margo Mankus          | Marriott        | Franklin 1 |

# Sessions by Subject

| No. | Title | Day | Time | Presenter | Location | Room |
|-----|-------|-----|------|-----------|----------|------|
|-----|-------|-----|------|-----------|----------|------|

## ALGEBRA I

|     |                                                                                                             |          |                       |                     |                 |            |
|-----|-------------------------------------------------------------------------------------------------------------|----------|-----------------------|---------------------|-----------------|------------|
| 440 | Navigating through Algebra I and II Using Texas Instruments Education Technology                            | Saturday | 2:15 p.m. - 3:45 p.m. | Bill Stiggers       | Marriott        | Salon J    |
| 461 | Exploring Algebra I with the TI-Nspire™ Navigator™ System                                                   | Saturday | 4:00 p.m. - 5:30 p.m. | Abby Sanchez        | Convention Ctr. | 120 B      |
| 462 | Exploring Functions with Sliders and Data Capture                                                           | Saturday | 4:00 p.m. - 5:30 p.m. | Beatrice Metts-Bell | Convention Ctr. | 120 C      |
| 463 | CCSS-aligned TI-Nspired™ Algebra Activities: Hands-on Explorations, Student Opinions and Assessment Results | Saturday | 4:00 p.m. - 5:30 p.m. | Ann Schlemper       | Convention Ctr. | 121 A      |
| 473 | Take a Bite Out of the Common Core with the TI-84 Plus C Silver Edition Graphing Calculator                 | Saturday | 4:00 p.m. - 5:30 p.m. | Sherri Abel         | Marriott        | Franklin 1 |
| 485 | Draw Something: Program your Graphing Calculator to Create a Drawing                                        | Saturday | 4:00 p.m. - 5:30 p.m. | Ann L. Bailey       | Marriott        | Salon J    |

## ALGEBRA II

|     |                                                                                                                        |        |                         |                    |                 |            |
|-----|------------------------------------------------------------------------------------------------------------------------|--------|-------------------------|--------------------|-----------------|------------|
| 28  | Developing Symbolic Meaning with Dynamically Connected Representations                                                 | Friday | 10:15 a.m. - 11:15 a.m. | Doug Lapp          | Convention Ctr. | 123        |
| 29  | An Introduction to Using CAS with Your Students Who Find Mathematics Difficult                                         | Friday | 10:15 a.m. - 11:15 a.m. | Beverly Farahani   | Convention Ctr. | 124        |
| 30  | Listing Slightly to Port, but Otherwise OK                                                                             | Friday | 10:15 a.m. - 11:15 a.m. | Jim Nakamoto       | Convention Ctr. | 125        |
| 38  | Simulations for Algebra through Precalculus Using the TI-84 Plus Silver Edition Graphing Calculator                    | Friday | 10:15 a.m. - 11:15 a.m. | Alice Hess         | Marriott        | Franklin 8 |
| 71  | Thinking Graphically: Using Multiple Representations on the TI-Nspire™ CAS Handheld as a New Way to Solve Old Problems | Friday | 11:30 a.m. - 12:30 p.m. | Matt Rhodes        | Convention Ctr. | 123        |
| 73  | An Nspired Look at Transformations in Algebra                                                                          | Friday | 11:30 a.m. - 12:30 p.m. | Landy Godbold      | Convention Ctr. | 125        |
| 76  | Fun Stat Activities to Use with Your TI-84 Plus C Silver Edition Graphing Calculator                                   | Friday | 11:30 a.m. - 12:30 p.m. | Sharon Cichocki    | Marriott        | Franklin 1 |
| 82  | CCSS + Interactive White Board + TI-84 Plus Silver Edition Graphing Calculator = Student Engagement                    | Friday | 11:30 a.m. - 12:30 p.m. | Terry Politi       | Marriott        | Franklin 9 |
| 114 | Activity-based Regression Analysis Using the TI-84 Plus Silver Edition Graphing Calculator                             | Friday | 1:30 p.m. - 2:30 p.m.   | Cory Cloud         | Convention Ctr. | 123        |
| 115 | Investigating Function Transformations on the TI-Nspire™ Handheld                                                      | Friday | 1:30 p.m. - 2:30 p.m.   | Hugh Daniels       | Convention Ctr. | 124        |
| 116 | Teaching Conic Sections Using the TI-Nspire™ CAS Handheld                                                              | Friday | 1:30 p.m. - 2:30 p.m.   | David Scott        | Convention Ctr. | 125        |
| 119 | Gathering Data and Modeling Functions Using the TI-84 Plus C Silver Edition Graphing Calculator                        | Friday | 1:30 p.m. - 2:30 p.m.   | Diane Broberg      | Marriott        | Franklin 1 |
| 125 | Managing Different Graphing Calculators in the Classroom                                                               | Friday | 1:30 p.m. - 2:30 p.m.   | Sheila Horstman    | Marriott        | Franklin 9 |
| 157 | Beautiful Pictures of Lake Havasu Balloonfest Provide Modeling Opportunities: Be Nspired to Create Mathematical Models | Friday | 2:45 p.m. - 4:15 p.m.   | Sharon Dailey      | Convention Ctr. | 123        |
| 158 | We Are Family: A TI-Nspire™ Handheld Exploration of the Function Families                                              | Friday | 2:45 p.m. - 4:15 p.m.   | Elizabeth Pugliese | Convention Ctr. | 124        |
| 159 | Algebra 2, Common Core State Standards and TI-Nspire™ Handheld                                                         | Friday | 2:45 p.m. - 4:15 p.m.   | Ann Davidian       | Convention Ctr. | 125        |



# Sessions by Subject

| No.               | Title                                                                                                                      | Day      | Time                    | Presenter         | Location        | Room       |
|-------------------|----------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|-------------------|-----------------|------------|
| <b>ALGEBRA II</b> |                                                                                                                            |          |                         |                   |                 |            |
| 168               | Facing Common Core with the TI-84 Plus Silver Edition Graphing Calculator                                                  | Friday   | 2:45 p.m. - 4:15 p.m.   | Debbie Poss       | Marriott        | Franklin 9 |
| 202               | Colorful Conics on the TI-Nspire™ CX CAS Handheld                                                                          | Friday   | 4:30 p.m. - 5:30 p.m.   | Raymond Rozen     | Convention Ctr. | 125        |
| 211               | Discovering the Unit Circle Using the TI-84 Plus Silver Edition Graphing Calculator                                        | Friday   | 4:30 p.m. - 5:30 p.m.   | Ronda Davis       | Marriott        | Franklin 9 |
| 235               | No Handhelds? No Problem! Use the TI-Nspire™ Teacher Software as a Powerful Demonstration Tool.                            | Saturday | 8:00 a.m. - 9:30 a.m.   | Julie Riggins     | Convention Ctr. | 120 A      |
| 243               | Providing Differentiated Support for All Students Using the TI-Nspire™ Navigator™ System and TI-Nspire™ CAS Handheld       | Saturday | 8:00 a.m. - 9:30 a.m.   | Allan Bellman     | Convention Ctr. | 123        |
| 244               | <i>Flipped Out</i> about CCSS in Algebra II with the TI-Nspire™ Navigator™ System                                          | Saturday | 8:00 a.m. - 9:30 a.m.   | Robyn Poulsen     | Convention Ctr. | 124        |
| 245               | Give the Devil His Due Using the TI-Nspire™ Navigator™ System: Geometric Sequences Numerically, Graphically, Algebraically | Saturday | 8:00 a.m. - 9:30 a.m.   | Dennis Donovan    | Convention Ctr. | 125        |
| 288               | Using the TI-Nspire™ Navigator™ System: Not the App, but the System                                                        | Saturday | 9:45 a.m. - 10:45 a.m.  | Andrew Amstutz    | Convention Ctr. | 123        |
| 289               | TI-Nspire™ Navigator™ and the Three Rs: Rigor, Relevance and Relationships                                                 | Saturday | 9:45 a.m. - 10:45 a.m.  | Tracy Slate       | Convention Ctr. | 124        |
| 293               | The TI-84 Plus C Silver Edition Graphing Calculator in Secondary Math in Preparation for AP* Calculus                      | Saturday | 9:45 a.m. - 10:45 a.m.  | Fan Disher        | Marriott        | Franklin 1 |
| 294               | Modeling Data with the TI-84 Plus C Silver Edition Graphing Calculator                                                     | Saturday | 9:45 a.m. - 10:45 a.m.  | Judy Hicks        | Marriott        | Franklin 2 |
| 305               | Introducing Tricky Trig Functions Using the TI-Navigator™ Classroom Learning System                                        | Saturday | 9:45 a.m. - 10:45 a.m.  | Cindy Edwards     | Marriott        | Salon J    |
| 333               | Analyzing Classroom Temperature with TI-Nspire™ Technology                                                                 | Saturday | 11:00 a.m. - 12:00 p.m. | Jeff Corn         | Convention Ctr. | 123        |
| 334               | Making Math Out of March Madness                                                                                           | Saturday | 11:00 a.m. - 12:00 p.m. | Jennifer Axley    | Convention Ctr. | 124        |
| 335               | Animated Activities with TI-Nspire™ Technology that Capture the Spirit of the Common Core State Standards for Algebra II   | Saturday | 11:00 a.m. - 12:00 p.m. | Brendan Kelly     | Convention Ctr. | 125        |
| 338               | Fun Stat Activities to Use with your TI-84 Plus C Silver Edition Graphing Calculator                                       | Saturday | 11:00 a.m. - 12:00 p.m. | Sharon Cichocki   | Marriott        | Franklin 1 |
| 350               | Fun with Functions and the TI-84 Plus Silver Edition Graphing Calculator                                                   | Saturday | 11:00 a.m. - 12:00 p.m. | Reva Narasimhan   | Marriott        | Salon J    |
| 378               | Rats, it's Time to Teach Rationals: Meet Mathematical Practice #7                                                          | Saturday | 1:00 p.m. - 2:00 p.m.   | Andrew Benzing    | Convention Ctr. | 123        |
| 379               | Stations in Secondary Math? How TI-Nspire™ Technology can Differentiate Your Classroom                                     | Saturday | 1:00 p.m. - 2:00 p.m.   | Toni Norrell      | Convention Ctr. | 124        |
| 423               | RATS! Why are RATIONAL Functions so Hard? TI-Nspire™ Technology to the Rescue.                                             | Saturday | 2:15 p.m. - 3:45 p.m.   | Lynn Adsit        | Convention Ctr. | 123        |
| 424               | Common Core State Standards for Mathematics, TI-Nspire™ Technology and Data Collection: The Correlation                    | Saturday | 2:15 p.m. - 3:45 p.m.   | Delbra Robinson   | Convention Ctr. | 124        |
| 425               | How do you Meet the Standards and Still Excite Your Math Students? Use a Lab-based Approach with TI-Nspire™ Technology.    | Saturday | 2:15 p.m. - 3:45 p.m.   | Ronald Armontrout | Convention Ctr. | 125        |
| 468               | Engaging students with Nspiring Technology Using the TI-Nspire™ Navigator™ System                                          | Saturday | 4:00 p.m. - 5:30 p.m.   | Kevin Rodgers     | Convention Ctr. | 123        |
| 470               | Fish, Cars and Recursion                                                                                                   | Saturday | 4:00 p.m. - 5:30 p.m.   | Pamela Rawson     | Convention Ctr. | 125        |



# Sessions by Subject

| No. | Title | Day | Time | Presenter | Location | Room |
|-----|-------|-----|------|-----------|----------|------|
|-----|-------|-----|------|-----------|----------|------|

## ASSESSMENT

|     |                                                                                      |          |                         |                 |                 |       |
|-----|--------------------------------------------------------------------------------------|----------|-------------------------|-----------------|-----------------|-------|
| 4   | The TI-Nspire™ Navigator™ System: A GPS for Student Learning                         | Friday   | 10:15 a.m. - 11:15 a.m. | Jeff Van Arnhem | Convention Ctr. | 112 A |
| 47  | Formative Assessment: The Use of Multiple Representations to Help with Understanding | Friday   | 11:30 a.m. - 12:30 p.m. | Sherrina Clark  | Convention Ctr. | 112 A |
| 90  | Organizing Your Lessons with Questions                                               | Friday   | 1:30 p.m. - 2:30 p.m.   | Denny St. John  | Convention Ctr. | 112 A |
| 133 | Nspired Mastery                                                                      | Friday   | 2:45 p.m. - 4:15 p.m.   | Doug Smeltz     | Convention Ctr. | 112 A |
| 219 | The Power of the TI-Nspire™ Navigator™ System                                        | Saturday | 8:00 a.m. - 9:30 a.m.   | Jennifer Wilson | Convention Ctr. | 112 A |
| 220 | Advanced Questioning with the TI-Nspire™ Navigator™ System                           | Saturday | 8:00 a.m. - 9:30 a.m.   | Don Worcester   | Convention Ctr. | 112 B |
| 309 | The TI-Nspire™ Navigator™ System Alongside <i>You Didn't Teach Me This!</i>          | Saturday | 11:00 a.m. - 12:00 p.m. | Kara Leaman     | Convention Ctr. | 112 A |
| 354 | Assessments Using the TI-Nspire™ Navigator™ System: Go Paperless                     | Saturday | 1:00 p.m. - 2:00 p.m.   | Mary A. Brese   | Convention Ctr. | 112 A |
| 399 | The TI-Nspire™ Navigator™ System for Power Users                                     | Saturday | 2:15 p.m. - 3:45 p.m.   | Jeff McCalla    | Convention Ctr. | 112 A |
| 444 | Formative Assessment During a Lesson with TI-Nspire™ Technology                      | Saturday | 4:00 p.m. - 5:30 p.m.   | Deb Nutt        | Convention Ctr. | 112 A |

## AUTHORING

|     |                                                                                   |          |                         |                |                 |       |
|-----|-----------------------------------------------------------------------------------|----------|-------------------------|----------------|-----------------|-------|
| 13  | Using Texas Instruments Technology to Develop Common Core State Standards Lessons | Friday   | 10:15 a.m. - 11:15 a.m. | Linda Griffith | Convention Ctr. | 116   |
| 56  | Conditional Formatting: Energize Your Documents                                   | Friday   | 11:30 a.m. - 12:30 p.m. | Ellen Browne   | Convention Ctr. | 116   |
| 104 | Related Rate Simulations                                                          | Friday   | 1:30 p.m. - 2:30 p.m.   | Pat Mara       | Convention Ctr. | 119 A |
| 147 | Creating Powerful Learning Tools with the TI-Nspire™ Navigator™ NC System         | Friday   | 2:45 p.m. - 4:15 p.m.   | Steve Arnold   | Convention Ctr. | 119 A |
| 228 | TI-Nspire™ CAS Handheld Tips and Tricks: The Latest in the Cool and Powerful      | Saturday | 8:00 a.m. - 9:30 a.m.   | Marc Garneau   | Convention Ctr. | 116   |
| 233 | The TI-Nspire™ Document Player: What is it?                                       | Saturday | 8:00 a.m. - 9:30 a.m.   | Tracy Watson   | Convention Ctr. | 119 A |
| 271 | <i>Match the Graph</i> (Now in Living Color)                                      | Saturday | 9:45 a.m. - 10:45 a.m.  | Heidi Rudolph  | Convention Ctr. | 115 B |
| 408 | Striking Statistical Simulations Using Lua Scripting                              | Saturday | 2:15 p.m. - 3:45 p.m.   | Andy Kemp      | Convention Ctr. | 116   |

## BIOLOGY

|    |                                                                                                                       |        |                         |                 |                 |       |
|----|-----------------------------------------------------------------------------------------------------------------------|--------|-------------------------|-----------------|-----------------|-------|
| 6  | Anatomical Analysis of <i>Your Heart</i> Through EKG Using the TI-Nspire™ Learning Handheld and TI-Nspire™ Lab Cradle | Friday | 10:15 a.m. - 11:15 a.m. | Rob Adams       | Convention Ctr. | 113 A |
| 49 | Giving Data a Life of Its Own                                                                                         | Friday | 11:30 a.m. - 12:30 p.m. | Jeff Lukens     | Convention Ctr. | 113 A |
| 92 | This Session Contains MSG: Math, Science and Genetics                                                                 | Friday | 1:30 p.m. - 2:30 p.m.   | Shawn Schlueter | Convention Ctr. | 113 A |

# Sessions by Subject

| No.             | Title                                                                                                                                                | Day      | Time                    | Presenter       | Location        | Room  |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|-----------------|-----------------|-------|
| <b>BIOLOGY</b>  |                                                                                                                                                      |          |                         |                 |                 |       |
| 135             | Teaching Human Physiology Using the TI-Nspire™ Handheld                                                                                              | Friday   | 2:45 p.m. - 4:15 p.m.   | Judy Day        | Convention Ctr. | 113 A |
| 178             | Marine Science Investigations                                                                                                                        | Friday   | 4:30 p.m. - 5:30 p.m.   | Scott Hurley    | Convention Ctr. | 113 A |
| 221             | Biology Labs Using the TI-Nspire™ Handheld                                                                                                           | Saturday | 8:00 a.m. - 9:30 a.m.   | Judy Day        | Convention Ctr. | 113 A |
| 266             | Inquiry Science in a Biology Classroom with the TI-Nspire™ Handheld                                                                                  | Saturday | 9:45 a.m. - 10:45 a.m.  | Chad Backsen    | Convention Ctr. | 113 A |
| 280             | What do Yeast Like to Eat? An Argument-driven Inquiry Utilizing Probes and Laptops.                                                                  | Saturday | 9:45 a.m. - 10:45 a.m.  | Melanie Hester  | Convention Ctr. | 120 A |
| 311             | Launching the TI-Nspire™ CX Navigator™ System and TI-Nspire™ CX Handheld in Biology Classrooms at Woodrow Wilson High School in Portsmouth, Virginia | Saturday | 11:00 a.m. - 12:00 p.m. | Cheryl Coronado | Convention Ctr. | 113 A |
| 401             | Enhancing a Biology Classroom Using the TI-Nspire™ CX Navigator™ System                                                                              | Saturday | 2:15 p.m. - 3:45 p.m.   | Christy Barton  | Convention Ctr. | 113 A |
| 446             | Investigating Photosynthesis and Respiration with the TI-84 Plus C Silver Edition Graphing Calculator                                                | Saturday | 4:00 p.m. - 5:30 p.m.   | Judy Day        | Convention Ctr. | 113 A |
| <b>CALCULUS</b> |                                                                                                                                                      |          |                         |                 |                 |       |
| 14              | Workshop for New TI-Nspire™ CAS Handheld Users Teaching Calculus                                                                                     | Friday   | 10:15 a.m. - 11:15 a.m. | Patricia Casey  | Convention Ctr. | 117   |
| 57              | Let's Explore the Derivative with the TI-Nspire™ CAS Handheld                                                                                        | Friday   | 11:30 a.m. - 12:30 p.m. | Vicki Carter    | Convention Ctr. | 117   |
| 100             | Integrating the TI-Nspire™ CAS Handheld in Your AP* Calculus Curriculum                                                                              | Friday   | 1:30 p.m. - 2:30 p.m.   | Kim Schjelderup | Convention Ctr. | 117   |
| 143             | NASA and the TI-Nspire™ CAS Handheld: Activities for Your Calculus Classroom                                                                         | Friday   | 2:45 p.m. - 4:15 p.m.   | Ray Barton      | Convention Ctr. | 117   |
| 186             | Explore New Ways to Engage and Excite Students with Discussion and Exploration of Graphing Functions with the TI-Nspire™ CAS Handheld                | Friday   | 4:30 p.m. - 5:30 p.m.   | Eduardo Briceño | Convention Ctr. | 117   |
| 229             | Interpreting Graphs in AP* Calculus                                                                                                                  | Saturday | 8:00 a.m. - 9:30 a.m.   | Tom Becvar      | Convention Ctr. | 117   |
| 265             | Calculus Explorations Using the TI-Nspire™ CAS Handheld                                                                                              | Saturday | 9:45 a.m. - 10:45 a.m.  | Ken Collins     | Convention Ctr. | 112 B |
| 274             | Parametric 3D Plotting with the TI-Nspire™ CAS Handheld                                                                                              | Saturday | 9:45 a.m. - 10:45 a.m.  | Michel Beaudin  | Convention Ctr. | 117   |
| 310             | Give Your Mathematics a Lift!                                                                                                                        | Saturday | 11:00 a.m. - 12:00 p.m. | Trevor Redmond  | Convention Ctr. | 112 B |
| 319             | TI-Nspire™ CAS Handheld Activities for Calculus and Vectors                                                                                          | Saturday | 11:00 a.m. - 12:00 p.m. | Paul Alves      | Convention Ctr. | 117   |
| 364             | Using the TI-Nspire™ CAS Handheld in AP* Calculus                                                                                                    | Saturday | 1:00 p.m. - 2:00 p.m.   | Lisa Conzemius  | Convention Ctr. | 117   |
| 409             | Tech Tips for AP* Calculus: TI-84 Plus Silver Edition Graphing Calculator and TI-Nspire™ CAS Handheld                                                | Saturday | 2:15 p.m. - 3:45 p.m.   | Sean Bird       | Convention Ctr. | 117   |
| 454             | Exploring Real Data in the Calculus Classroom Using the TI-Nspire™ CAS Handheld and the Vernier® System                                              | Saturday | 4:00 p.m. - 5:30 p.m.   | Douglas Dunkle  | Convention Ctr. | 117   |

# Sessions by Subject

**No. Title Day Time Presenter Location Room**

## CAS

|     |                                                                                                                        |          |                         |                   |          |            |
|-----|------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|-------------------|----------|------------|
| 251 | Meaningful Algebra with CAS                                                                                            | Saturday | 8:00 a.m. - 9:30 a.m.   | Steve Arnold      | Marriott | Franklin 5 |
| 252 | Exploring the Calculator and Lists & Spreadsheets Apps on the TI-Nspire™ CAS Handheld                                  | Saturday | 8:00 a.m. - 9:30 a.m.   | Jay Schiffman     | Marriott | Franklin 6 |
| 253 | Enhancing Precalculus and Calculus Learning with Interactive Dynamic Graphs Using the TI-Nspire™ CAS Handheld          | Saturday | 8:00 a.m. - 9:30 a.m.   | Frank Moya        | Marriott | Franklin 7 |
| 255 | Using CAS with Struggling Algebra Students                                                                             | Saturday | 8:00 a.m. - 9:30 a.m.   | Ken Indeck        | Marriott | Franklin 9 |
| 296 | Basic Algebra with TI-Nspire™ CAS Handheld                                                                             | Saturday | 9:45 a.m. - 10:45 a.m.  | Lynda Ferneyhough | Marriott | Franklin 5 |
| 297 | Once Upon a Circle: The TI-Nspire™ CAS Handheld                                                                        | Saturday | 9:45 a.m. - 10:45 a.m.  | John Hanna        | Marriott | Franklin 6 |
| 298 | What About Factoring? Is It Relevant with CAS-enabled Tools?                                                           | Saturday | 9:45 a.m. - 10:45 a.m.  | Michael Buescher  | Marriott | Franklin 7 |
| 299 | The Use of CAS Calculators on ACT® Mathematics Exams by Students in CAS-using Schools                                  | Saturday | 9:45 a.m. - 10:45 a.m.  | M. Kathleen Heid  | Marriott | Franklin 8 |
| 300 | Teaching and Learning Secondary Mathematics with CAS: Reflecting on Two Decades of Research and Development Activities | Saturday | 9:45 a.m. - 10:45 a.m.  | Michèle Artigue   | Marriott | Franklin 9 |
| 341 | Modeling Algebraic Structures with CAS                                                                                 | Saturday | 11:00 a.m. - 12:00 p.m. | Al Cuoco          | Marriott | Franklin 5 |
| 342 | Kilts and CAS in both Canada and Scotland                                                                              | Saturday | 11:00 a.m. - 12:00 p.m. | Nevil Hopley      | Marriott | Franklin 6 |
| 343 | Exploring Dynamic CAS for Sense-Making and Reasoning                                                                   | Saturday | 11:00 a.m. - 12:00 p.m. | Lewis Lum         | Marriott | Franklin 7 |
| 344 | Is There a Better Way to Introduce Algebra for CAS?                                                                    | Saturday | 11:00 a.m. - 12:00 p.m. | Ray Williams      | Marriott | Franklin 8 |
| 345 | Teaching in an Electronic Age                                                                                          | Saturday | 11:00 a.m. - 12:00 p.m. | Stephen Vallette  | Marriott | Franklin 9 |
| 386 | Curve Sketching in Calculus with CAS                                                                                   | Saturday | 1:00 p.m. - 2:00 p.m.   | Fred Ferneyhough  | Marriott | Franklin 5 |
| 387 | CAS in the Algebra I Classroom                                                                                         | Saturday | 1:00 p.m. - 2:00 p.m.   | Ray Klein         | Marriott | Franklin 6 |
| 388 | Assessment with CAS: Writing Tests for CAS-capable Students                                                            | Saturday | 1:00 p.m. - 2:00 p.m.   | Michael Buescher  | Marriott | Franklin 7 |
| 389 | Problems for CAS Solutions                                                                                             | Saturday | 1:00 p.m. - 2:00 p.m.   | Lin McMullin      | Marriott | Franklin 8 |
| 390 | What Purposes Does Technology Really Play on Standardized Tests and in Classrooms?                                     | Saturday | 1:00 p.m. - 2:00 p.m.   | Rose Zbiek        | Marriott | Franklin 9 |
| 431 | Making the Most of the TI-Nspire™ CAS Handheld Notes Application                                                       | Saturday | 2:15 p.m. - 3:45 p.m.   | Peter Flynn       | Marriott | Franklin 5 |
| 432 | Number Theoretic Programs for the TI-89 Titanium Graphing Calculator                                                   | Saturday | 2:15 p.m. - 3:45 p.m.   | Jay Schiffman     | Marriott | Franklin 6 |
| 434 | Nspired Probability, Polynomials and CAS                                                                               | Saturday | 2:15 p.m. - 3:45 p.m.   | Steve Phelps      | Marriott | Franklin 8 |
| 435 | Using CAS to Promote Discovery in Algebra II and Precalculus                                                           | Saturday | 2:15 p.m. - 3:45 p.m.   | Jon Lipeska       | Marriott | Franklin 9 |
| 477 | Number Theoretic Programs for the TI-89 Titanium Graphing Calculator                                                   | Saturday | 4:00 p.m. - 5:30 p.m.   | Jay Schiffman     | Marriott | Franklin 6 |
| 479 | Favorite CAS Activities That Integrate Algebra and Geometry Using the TI-Nspire™ Technology                            | Saturday | 4:00 p.m. - 5:30 p.m.   | Tom Reardon       | Marriott | Franklin 8 |
| 480 | Teaching and Learning with CAS Using the TI-Nspire™ CAS Handheld                                                       | Saturday | 4:00 p.m. - 5:30 p.m.   | Tony Farrell      | Marriott | Franklin 9 |

# Sessions by Subject

| No.                     | Title                                                                                                                                    | Day      | Time                    | Presenter          | Location        | Room        |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|--------------------|-----------------|-------------|
| <b>CHEMISTRY</b>        |                                                                                                                                          |          |                         |                    |                 |             |
| 50                      | H <sub>2</sub> O <sub>2</sub> : Friend or Foe?                                                                                           | Friday   | 11:30 a.m. - 12:30 p.m. | Ray Lesniewski     | Convention Ctr. | 113 B       |
| 91                      | Determining Iodine Concentration in Water Using the TI-Nspire™ CX CAS Handheld and Colorimeter                                           | Friday   | 1:30 p.m. - 2:30 p.m.   | Lisa McGaw         | Convention Ctr. | 112 B       |
| 93                      | How Do We Know What They Know in Chemistry? Formative Assessment in Chemistry.                                                           | Friday   | 1:30 p.m. - 2:30 p.m.   | Todd Morstein      | Convention Ctr. | 113 B       |
| 136                     | Move Now From Cookbook To Inquiry                                                                                                        | Friday   | 2:45 p.m. - 4:15 p.m.   | Greg Dodd          | Convention Ctr. | 113 B       |
| 222                     | Blasting Off with NASA in Your Science Classroom                                                                                         | Saturday | 8:00 a.m. - 9:30 a.m.   | Todd Morstein      | Convention Ctr. | 113 B       |
| 267                     | Chemical Equilibrium: A Matter of Balance                                                                                                | Saturday | 9:45 a.m. - 10:45 a.m.  | Ray Lesniewski     | Convention Ctr. | 113 B       |
| 312                     | AP® Chemistry: Integrating TI-84 Plus Silver Edition Graphing Calculator and Probeware into AP® Inquiry Labs                             | Saturday | 11:00 a.m. - 12:00 p.m. | Jim Ealy           | Convention Ctr. | 113 B       |
| 356                     | Get Nspired with Inquiry                                                                                                                 | Saturday | 1:00 p.m. - 2:00 p.m.   | Dina Dormer        | Convention Ctr. | 113 A       |
| 357                     | Chemistry Concepts Come Alive Through Demonstrations in the Classroom Using the TI-84 Plus Silver Edition Graphing Calculator and Sensor | Saturday | 1:00 p.m. - 2:00 p.m.   | Julie B. Ealy      | Convention Ctr. | 113 B       |
| 402                     | Chemistry Activities with TI-Nspire™ Technology Using the Vernier® DataQuest™ App                                                        | Saturday | 2:15 p.m. - 3:45 p.m.   | C.W. Eaker         | Convention Ctr. | 113 B       |
| 447                     | Boyles Law with TI-Nspire™ Technology                                                                                                    | Saturday | 4:00 p.m. - 5:30 p.m.   | Marc Drougel       | Convention Ctr. | 113 B       |
| <b>ELEMENTARY MATH</b>  |                                                                                                                                          |          |                         |                    |                 |             |
| 40                      | Develop Number Sense for Grades 4 – 8 with the TI-73 Explorer™ Graphing Calculator and TI-84 Plus Silver Edition Graphing Calculator     | Friday   | 10:15 a.m. - 11:15 a.m. | Stuart Moskowitz   | Marriott        | Franklin 10 |
| 126                     | Integrating Math, Science and Literacy in the Elementary Classroom                                                                       | Friday   | 1:30 p.m. - 2:30 p.m.   | Tami Plein         | Marriott        | Franklin 10 |
| 169                     | STEM + Elementary = Nspire                                                                                                               | Friday   | 2:45 p.m. - 4:15 p.m.   | Marsha Burkholder  | Marriott        | Franklin 10 |
| 256                     | The TI-15 Explorer™ Calculator is the Tool for Common Core State Standards                                                               | Saturday | 8:00 a.m. - 9:30 a.m.   | Marsha Burkholder  | Marriott        | Franklin 10 |
| 436                     | Using Multiple Representations with the TI-10 and TI-15 Explorer™ Calculators to Build New Understandings in Elementary Mathematics      | Saturday | 2:15 p.m. - 3:45 p.m.   | Tammy L Jones      | Marriott        | Franklin 10 |
| <b>GENERAL INTEREST</b> |                                                                                                                                          |          |                         |                    |                 |             |
| 27                      | Donors Choose to Help You Get Texas Instruments Technology                                                                               | Friday   | 10:15 a.m. - 11:15 a.m. | Lisa Suarez        | Convention Ctr. | 122 B       |
| 34                      | Color on the TI-84 Plus C Silver Edition Graphing Calculator: Creatively and Effectively Utilize its Power in Your Mathematics Classroom | Friday   | 10:15 a.m. - 11:15 a.m. | Tom Reardon        | Marriott        | Franklin 2  |
| 37                      | Motivating Students Using STEM Activities                                                                                                | Friday   | 10:15 a.m. - 11:15 a.m. | Mary Lou Giannetto | Marriott        | Franklin 7  |
| 62                      | Creating Questions Using the TI-Nspire™ Navigator™ System                                                                                | Friday   | 11:30 a.m. - 12:30 p.m. | Audrey Cucci       | Convention Ctr. | 119 B       |

# Sessions by Subject

| No. | Title | Day | Time | Presenter | Location | Room |
|-----|-------|-----|------|-----------|----------|------|
|-----|-------|-----|------|-----------|----------|------|

## GENERAL INTEREST

|     |                                                                                                                                                                    |          |                         |                   |                 |            |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|-------------------|-----------------|------------|
| 63  | Introduction to TI-Nspire™ Navigator™ Teacher Software PublishView™ Documents                                                                                      | Friday   | 11:30 a.m. - 12:30 p.m. | Patricia Brooks   | Convention Ctr. | 120 A      |
| 70  | Exploring Online Resources for TI-Nspire™ Technology                                                                                                               | Friday   | 11:30 a.m. - 12:30 p.m. | Thomas Coleman    | Convention Ctr. | 122 B      |
| 74  | Introduction To Grant Writing: Beginning the Quest for Funding for Technology                                                                                      | Friday   | 11:30 a.m. - 12:30 p.m. | Louise Chapman    | Convention Ctr. | 126 A      |
| 106 | Using the TI-Nspire™ Navigator™ NC System in a Laptop-ed Classroom                                                                                                 | Friday   | 1:30 p.m. - 2:30 p.m.   | David Young       | Convention Ctr. | 120 A      |
| 117 | Can't Afford Current Technology? Still Using a TI-83 Plus Graphing Calculator or TI-84 Plus Graphing Calculator? Get 200 Color Interactive Activities <i>Free!</i> | Friday   | 1:30 p.m. - 2:30 p.m.   | Tom Reardon       | Convention Ctr. | 126 A      |
| 156 | Transitioning from the TI-84 Plus Silver Edition Graphing Calculator to the TI-Nspire™ Handheld                                                                    | Friday   | 2:45 p.m. - 4:15 p.m.   | William Caroscio  | Convention Ctr. | 122 B      |
| 160 | The TI MathForward™ Program: What's This All About?                                                                                                                | Friday   | 2:45 p.m. - 4:15 p.m.   | Gina Allred       | Convention Ctr. | 126 A      |
| 163 | A Nutty Connection of Math and Science Using the TI-84 Plus C Silver Edition Graphing Calculator                                                                   | Friday   | 2:45 p.m. - 4:15 p.m.   | Mary Beth Murrell | Marriott        | Franklin 2 |
| 181 | Using the iPad®, Digital Content and Apps to Deepen Students' Understanding of and Appreciation for Mathematics                                                    | Friday   | 4:30 p.m. - 5:30 p.m.   | Ron Lancaster     | Convention Ctr. | 114        |
| 203 | Setup, Install and First Day Use of the TI-Nspire™ Navigator™ System                                                                                               | Friday   | 4:30 p.m. - 5:30 p.m.   | Joseph Rodriguez  | Convention Ctr. | 126 A      |
| 224 | The TI-Nspire™ App for iPad®: How to Use and Creatively Integrate with Other Cool iPad Apps                                                                        | Saturday | 8:00 a.m. - 9:30 a.m.   | Tom Reardon       | Convention Ctr. | 114        |
| 242 | Tools, Tips, Tricks, and Techniques for the TI-Nspire™ CAS Handheld                                                                                                | Saturday | 8:00 a.m. - 9:30 a.m.   | Jerry Scherer     | Convention Ctr. | 122 B      |
| 246 | Get to the Common Core with the TI-Nspire™ Handheld (Part 2)                                                                                                       | Saturday | 8:00 a.m. - 9:30 a.m.   | Kimberley Thomas  | Convention Ctr. | 126 A      |
| 287 | The TI-Nspire™ CAS Handheld for Beginners: Turning the Mountain Back into a Molehill                                                                               | Saturday | 9:45 a.m. - 10:45 a.m.  | Tracy Wingert     | Convention Ctr. | 122 B      |
| 290 | Taking Students to the 21st Century                                                                                                                                | Saturday | 9:45 a.m. - 10:45 a.m.  | Ken Phillips      | Convention Ctr. | 125        |
| 291 | Hey, How Do I Do That Again?                                                                                                                                       | Saturday | 9:45 a.m. - 10:45 a.m.  | Josh Mize         | Convention Ctr. | 126 A      |
| 332 | SAT® Math Prep, the TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System: Inching Closer to 800                                                                | Saturday | 11:00 a.m. - 12:00 p.m. | Anthony Record    | Convention Ctr. | 122 B      |
| 336 | Embracing STEM Project-Based Learning and TI-Nspire™ Technology                                                                                                    | Saturday | 11:00 a.m. - 12:00 p.m. | Gustavo Perez     | Convention Ctr. | 126 A      |
| 381 | Tips and Tricks with the TI-Nspire™ Navigator™ System and Software                                                                                                 | Saturday | 1:00 p.m. - 2:00 p.m.   | Joseph Rodriguez  | Convention Ctr. | 126 A      |
| 414 | The Amazing Classroom Freedom Race                                                                                                                                 | Saturday | 2:15 p.m. - 3:45 p.m.   | Jane Damaske      | Convention Ctr. | 119 B      |
| 422 | Ask, Don't Tell: Listen to Learn and Assess                                                                                                                        | Saturday | 2:15 p.m. - 3:45 p.m.   | Jill Gough        | Convention Ctr. | 122 B      |
| 426 | The Secret Powers of the TI-Nspire™ CAS Handheld Menu System Revealed                                                                                              | Saturday | 2:15 p.m. - 3:45 p.m.   | Roger Fuller      | Convention Ctr. | 126 A      |
| 458 | The TI-Nspire™ PublishView™ Feature: Learn How Teachers Create Lesson Plans and Students Create Reports                                                            | Saturday | 4:00 p.m. - 5:30 p.m.   | Wallece Brewer    | Convention Ctr. | 119 A      |
| 471 | Hands On, Thumbs On, Minds On                                                                                                                                      | Saturday | 4:00 p.m. - 5:30 p.m.   | Jean McKenny      | Convention Ctr. | 126 A      |

# Sessions by Subject

| No.                 | Title                                                                                                                            | Day    | Time                    | Presenter                  | Location        | Room       |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------|--------|-------------------------|----------------------------|-----------------|------------|
| <b>GENERAL MATH</b> |                                                                                                                                  |        |                         |                            |                 |            |
| 5                   | Creating and Analyzing Position-Time Graphs Using the TI-Nspire™ Handheld and the TI-84 Plus Silver Edition Graphing Calculator  | Friday | 10:15 a.m. - 11:15 a.m. | Charla Holzbog             | Convention Ctr. | 112 B      |
| 15                  | Common Core Meets TI-Nspire™ Technology                                                                                          | Friday | 10:15 a.m. - 11:15 a.m. | Audrey Cucci               | Convention Ctr. | 118 A      |
| 16                  | A Heart for Valentine's Day: Limits for Precalculus and Calculus Students and Superellipses                                      | Friday | 10:15 a.m. - 11:15 a.m. | Ron Lancaster              | Convention Ctr. | 118 B      |
| 17                  | Use the TI-Nspire™ Handheld to Implement the Common Core                                                                         | Friday | 10:15 a.m. - 11:15 a.m. | Sherri Abel                | Convention Ctr. | 118 C      |
| 39                  | So You Have a Class Set of TI-84 Plus Silver Edition Graphing Calculators: Let's Take Advantage of the Free Apps                 | Friday | 10:15 a.m. - 11:15 a.m. | Beth Smith                 | Marriott        | Franklin 9 |
| 58                  | 3D Graphs Using a TI-Nspire™ CAS Handheld                                                                                        | Friday | 11:30 a.m. - 12:30 p.m. | Juana Yadira Martín Perico | Convention Ctr. | 118 A      |
| 59                  | Teaching Techniques for Digital Students Using the TI-Nspire™ Handheld                                                           | Friday | 11:30 a.m. - 12:30 p.m. | Stephanie MacKay           | Convention Ctr. | 118 B      |
| 60                  | Transitioning from the TI-84 Plus Silver Edition Graphing Calculator to the TI-Nspire™ CX Handheld                               | Friday | 11:30 a.m. - 12:30 p.m. | David Sword                | Convention Ctr. | 118 C      |
| 95                  | Well Known Thinking Errors and Other Teaching Ideas                                                                              | Friday | 1:30 p.m. - 2:30 p.m.   | Andreas Pollack            | Convention Ctr. | 114        |
| 101                 | Ultimate Brackets: A World Premier                                                                                               | Friday | 1:30 p.m. - 2:30 p.m.   | Nevil Hopley               | Convention Ctr. | 118 A      |
| 102                 | Using the TI-Nspire™ Handheld to Teach Statistics for Common Core                                                                | Friday | 1:30 p.m. - 2:30 p.m.   | Joshua Underdonk           | Convention Ctr. | 118 B      |
| 134                 | Using NASA Data to Explore S-IC.3-5 of the Common Core State Standards Using the TI-Nspire™ CAS Handheld                         | Friday | 2:45 p.m. - 4:15 p.m.   | Curtis Brown               | Convention Ctr. | 112 B      |
| 144                 | Technology and the Common Core State Standards: Panel Discussion                                                                 | Friday | 2:45 p.m. - 4:15 p.m.   | Tom Dick                   | Convention Ctr. | 118 A      |
| 145                 | Getting to the Common Core with the TI-Nspire™ Handheld (Part 1)                                                                 | Friday | 2:45 p.m. - 4:15 p.m.   | Veronica Carlson           | Convention Ctr. | 118 B      |
| 146                 | TI-Nspire™ CAS Handheld: Cure for the Common Core                                                                                | Friday | 2:45 p.m. - 4:15 p.m.   | Marian Prince              | Convention Ctr. | 118 C      |
| 177                 | Investigating Functions with Transformations Using the TI-Nspire™ Handheld and the TI-84 Plus Silver Edition Graphing Calculator | Friday | 4:30 p.m. - 5:30 p.m.   | Charla Holzbog             | Convention Ctr. | 112 B      |
| 188                 | Empowering Students in the Math Class Using the TI-Nspire™ Navigator™ System                                                     | Friday | 4:30 p.m. - 5:30 p.m.   | Kathryn Behling            | Convention Ctr. | 118 B      |
| 191                 | How to Use the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature in the Classroom                                      | Friday | 4:30 p.m. - 5:30 p.m.   | Jess Kachur                | Convention Ctr. | 119 B      |



# Sessions by Subject

| No. | Title | Day | Time | Presenter | Location | Room |
|-----|-------|-----|------|-----------|----------|------|
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## GENERAL MATH

|     |                                                                                                                                                  |          |                         |                        |                 |            |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|------------------------|-----------------|------------|
| 232 | Best Teaching Practices Using the Networked TI-Nspire™ Navigator™ NC for Computers or TI-Nspire™ Navigator™ for Handhelds                        | Saturday | 8:00 a.m. - 9:30 a.m.   | Ellen Browne           | Convention Ctr. | 118 C      |
| 275 | Fun with TI-Nspire™ CAS Handheld                                                                                                                 | Saturday | 9:45 a.m. - 10:45 a.m.  | Jennifer Chirles       | Convention Ctr. | 118 A      |
| 276 | Changes in the Plan Through the TI-Nspire™ CAS Handheld                                                                                          | Saturday | 9:45 a.m. - 10:45 a.m.  | Sofia Murillo Martinez | Convention Ctr. | 118 B      |
| 277 | An Introductory Tour of the TI-Nspire™ Handheld                                                                                                  | Saturday | 9:45 a.m. - 10:45 a.m.  | Ron Kennedy            | Convention Ctr. | 118 C      |
| 278 | Using the Assessment Portfolio Strategically with the TI-Nspire™ Navigator™ System to Lessen Teacher Grading Time                                | Saturday | 9:45 a.m. - 10:45 a.m.  | Jeremy Zelkowski       | Convention Ctr. | 119 A      |
| 314 | Exploring Rates from Algebra to Calculus                                                                                                         | Saturday | 11:00 a.m. - 12:00 p.m. | Vicki Carter           | Convention Ctr. | 114        |
| 321 | Picture Time with the TI-Nspire™ Handheld                                                                                                        | Saturday | 11:00 a.m. - 12:00 p.m. | Andi Parr              | Convention Ctr. | 118 B      |
| 322 | Rich Tasks for the TI-Nspire™ Handheld                                                                                                           | Saturday | 11:00 a.m. - 12:00 p.m. | Max Ray                | Convention Ctr. | 118 C      |
| 324 | Quick Polls, Documents and Pages, Oh my! Get Nspired to Learn About Daily TI-Nspire™ Navigator™ System Use                                       | Saturday | 11:00 a.m. - 12:00 p.m. | Kari Craddock          | Convention Ctr. | 119 B      |
| 365 | Flipping out over Flipbooks: Make an Nspiring Math Movie with Music and Fun                                                                      | Saturday | 1:00 p.m. - 2:00 p.m.   | Elizabeth Haskins      | Convention Ctr. | 118 A      |
| 366 | Your <i>Golden</i> Measurements                                                                                                                  | Saturday | 1:00 p.m. - 2:00 p.m.   | Deobra Solomon         | Convention Ctr. | 118 B      |
| 367 | Reaching All Learners with TI-Nspire™ Technology: How to Tackle the Common Core State Standards for Mathematical Practice in a Diverse Classroom | Saturday | 1:00 p.m. - 2:00 p.m.   | Pamela Baker           | Convention Ctr. | 118 C      |
| 384 | Bright Colors and More: See What the TI-84 Plus C Silver Edition Graphing Calculator Can Do                                                      | Saturday | 1:00 p.m. - 2:00 p.m.   | John LaMaster          | Marriott        | Franklin 2 |
| 410 | You Want Me To Do What?                                                                                                                          | Saturday | 2:15 p.m. - 3:45 p.m.   | Kim Zeydel             | Convention Ctr. | 118 A      |
| 411 | F <sup>25</sup> : 25 Lesser Known Features of the TI-84 Plus Silver Edition Graphing Calculator                                                  | Saturday | 2:15 p.m. - 3:45 p.m.   | Marilyn Parker         | Convention Ctr. | 118 B      |
| 412 | So You Bought an TI-Nspire™ Handheld. Now What?                                                                                                  | Saturday | 2:15 p.m. - 3:45 p.m.   | Becky Byer             | Convention Ctr. | 118 C      |
| 429 | Bright Colors and More: See What the TI-84 Plus C Silver Edition Graphing Calculator Can Do                                                      | Saturday | 2:15 p.m. - 3:45 p.m.   | John LaMaster          | Marriott        | Franklin 2 |
| 455 | <i>What's So Mean About It?</i> 5 – 7 Grade Common Core State Standards on Data and Statistics                                                   | Saturday | 4:00 p.m. - 5:30 p.m.   | Jane Martain           | Convention Ctr. | 118 A      |
| 457 | Data Analysis with TI-Nspire™ Technology: Common Core Modeling in the Math Classroom                                                             | Saturday | 4:00 p.m. - 5:30 p.m.   | Jeremy Zelkowski       | Convention Ctr. | 118 C      |



# Sessions by Subject

| No.                    | Title                                                                                                                                     | Day      | Time                    | Presenter       | Location        | Room  |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|-----------------|-----------------|-------|
| <b>GENERAL SCIENCE</b> |                                                                                                                                           |          |                         |                 |                 |       |
| 1                      | Measuring Mechanical Energy Transformations                                                                                               | Friday   | 10:15 a.m. - 11:15 a.m. | Paul Williams   | Convention Ctr. | 109 B |
| 3                      | Overview of the Winning TI-Nspire™ STEM Project Challenge Entry Highlighting Student Product                                              | Friday   | 10:15 a.m. - 11:15 a.m. | Brenda Peterman | Convention Ctr. | 111 B |
| 7                      | Science Olympiad and Texas Instruments 2012-2013                                                                                          | Friday   | 10:15 a.m. - 11:15 a.m. | Michael Smith   | Convention Ctr. | 113 B |
| 44                     | Data Aggregation Without the Aggravation with the TI-Nspire™ Navigator™ System                                                            | Friday   | 11:30 a.m. - 12:30 p.m. | Peggy Welch     | Convention Ctr. | 109 B |
| 46                     | The Carbon Cycle and Climate Change with TI-Nspire™ Technology                                                                            | Friday   | 11:30 a.m. - 12:30 p.m. | Tom Green       | Convention Ctr. | 111 B |
| 87                     | Nspired Forensics                                                                                                                         | Friday   | 1:30 p.m. - 2:30 p.m.   | Jacklyn Bonneau | Convention Ctr. | 109 B |
| 130                    | Advanced Problem Solving in Science with the TI-Nspire™ CAS Handheld                                                                      | Friday   | 2:45 p.m. - 4:15 p.m.   | C.W. Eaker      | Convention Ctr. | 109 B |
| 132                    | Collecting and Analyzing Data Using the TI-Nspire™ Handheld                                                                               | Friday   | 2:45 p.m. - 4:15 p.m.   | Greg Williams   | Convention Ctr. | 111 B |
| 175                    | Parts Per Million: Exploring Concentration with Three Different Vernier® Sensors and the TI-Nspire™ Lab Cradle                            | Friday   | 4:30 p.m. - 5:30 p.m.   | Suzanne Tucker  | Convention Ctr. | 111 B |
| 216                    | STEM: Now or Never!                                                                                                                       | Saturday | 8:00 a.m. - 9:30 a.m.   | Greg Dodd       | Convention Ctr. | 109 B |
| 218                    | Real Data. Real Time. Data Collection in the Science Classroom with the TI-Nspire™ CAS Handheld.                                          | Saturday | 8:00 a.m. - 9:30 a.m.   | Ed Roberts      | Convention Ctr. | 111 B |
| 261                    | Cultural Change: Implementing Scientific Literacy Districtwide                                                                            | Saturday | 9:45 a.m. - 10:45 a.m.  | Eleanor Smalley | Convention Ctr. | 109 B |
| 306                    | Make Your Favorite Labs Nspired                                                                                                           | Saturday | 11:00 a.m. - 12:00 p.m. | Jacklyn Bonneau | Convention Ctr. | 109 B |
| 351                    | Integrating TI-Nspire™ Technology Into the Science Classroom                                                                              | Saturday | 1:00 p.m. - 2:00 p.m.   | Louise Chapman  | Convention Ctr. | 109 B |
| 353                    | Science and Math Integrated with Just a Little Common Sensors                                                                             | Saturday | 1:00 p.m. - 2:00 p.m.   | Jeff Lukens     | Convention Ctr. | 111 B |
| 359                    | Hands-on, Minds-on Science on the iPad®                                                                                                   | Saturday | 1:00 p.m. - 2:00 p.m.   | Ray Lesniewski  | Convention Ctr. | 114   |
| 396                    | Performing and Assessing Science Lab Activities Using the TI-Nspire™ Navigator™ System                                                    | Saturday | 2:15 p.m. - 3:45 p.m.   | Rob Reniewicki  | Convention Ctr. | 109 B |
| 398                    | Using the TI-Nspire™ CAS Handheld to Bring the Next Generation Science Framework to Life in the Classroom                                 | Saturday | 2:15 p.m. - 3:45 p.m.   | Patti Smith     | Convention Ctr. | 111 B |
| 443                    | Pressure: Using the Gas Pressure Probe with the TI-84 Plus Silver Edition Graphing Calculator and TI-Navigator™ Classroom Learning System | Saturday | 4:00 p.m. - 5:30 p.m.   | Greg Williams   | Convention Ctr. | 111 B |
| 449                    | I Have an iPad® – Now What?                                                                                                               | Saturday | 4:00 p.m. - 5:30 p.m.   | Greg Dodd       | Convention Ctr. | 114   |

# Sessions by Subject

**No. Title Day Time Presenter Location Room**

## GEOMETRY

|     |                                                                                                                         |          |                         |                   |                 |             |
|-----|-------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|-------------------|-----------------|-------------|
| 24  | Geometric Constructions Using the TI-Nspire™ Handheld to Meet the Common Core State Standards                           | Friday   | 10:15 a.m. - 11:15 a.m. | Jaime Burbano     | Convention Ctr. | 121 B       |
| 25  | The Woe and Wonder                                                                                                      | Friday   | 10:15 a.m. - 11:15 a.m. | Katy Edgar        | Convention Ctr. | 121 C       |
| 65  | TI-Nspire™ Handheld in Geometry: Using a Discrete Tool to Better Display Continuous Mathematics                         | Friday   | 11:30 a.m. - 12:30 p.m. | Lois Paris        | Convention Ctr. | 120 C       |
| 67  | Make the Transformation: Geometry to Nspired Geometry                                                                   | Friday   | 11:30 a.m. - 12:30 p.m. | Jamie Liptock     | Convention Ctr. | 121 B       |
| 68  | TI-Nspire™ CAS Handheld: Construct the Points of Concurrency in a Triangle                                              | Friday   | 11:30 a.m. - 12:30 p.m. | Ninamarie Sapuppo | Convention Ctr. | 121 C       |
| 110 | Students Energize Class by Bringing <i>Their</i> World Into It                                                          | Friday   | 1:30 p.m. - 2:30 p.m.   | Sandra Hocutt     | Convention Ctr. | 121 B       |
| 111 | Nspired Constructions                                                                                                   | Friday   | 1:30 p.m. - 2:30 p.m.   | Stephen West      | Convention Ctr. | 121 C       |
| 153 | Developing Geometry with the TI-Nspire™ Handheld                                                                        | Friday   | 2:45 p.m. - 4:15 p.m.   | Kathy Hale        | Convention Ctr. | 121 B       |
| 154 | Geometry, Transformations and TI-Nspire™ Technology: Making CCSS a Reality in Our Classrooms                            | Friday   | 2:45 p.m. - 4:15 p.m.   | Wade Ellis        | Convention Ctr. | 121 C       |
| 196 | Proof by Counterexample for Geometry Students Using the TI-Nspire™ Handheld                                             | Friday   | 4:30 p.m. - 5:30 p.m.   | Lisa Phillips     | Convention Ctr. | 121 B       |
| 197 | Introduction to Drawing Shapes and Constructions                                                                        | Friday   | 4:30 p.m. - 5:30 p.m.   | Melissa Churchill | Convention Ctr. | 121 C       |
| 239 | Some New Angles on Old Geometry                                                                                         | Saturday | 8:00 a.m. - 9:30 a.m.   | William Caroscio  | Convention Ctr. | 121 B       |
| 240 | Common Core-aligned TI-Nspired™ Geometry Activities: Hands-On Explorations with Student Feedback and Assessment Results | Saturday | 8:00 a.m. - 9:30 a.m.   | Michelle Goetz    | Convention Ctr. | 121 C       |
| 250 | A Geometry Lab in Your Hand: Using the Cabri™ Jr. App on the TI-83 Plus and TI-84 Plus Families of Graphing Calculators | Saturday | 8:00 a.m. - 9:30 a.m.   | Karen Campe       | Marriott        | Franklin 4  |
| 284 | Have You Got the Right Image? Transformations in the Coordinate Plane with the TI-Nspire™ Handheld.                     | Saturday | 9:45 a.m. - 10:45 a.m.  | Margaret Bambrick | Convention Ctr. | 121 B       |
| 285 | Discovering the Definition of the Parabola Using TI-Nspire™ Handheld as Seen Through a Common Core Classroom            | Saturday | 9:45 a.m. - 10:45 a.m.  | Stan Pappo        | Convention Ctr. | 121 C       |
| 295 | Dynamic Geometry on the TI-84 Plus Silver Edition Graphing Calculator: Cabri™ Jr. Basics                                | Saturday | 9:45 a.m. - 10:45 a.m.  | Elizabeth Haskins | Marriott        | Franklin 4  |
| 325 | Exploring Geometry Transformations and Sliders                                                                          | Saturday | 11:00 a.m. - 12:00 p.m. | Martin Sanchez    | Convention Ctr. | 120 A       |
| 330 | Visual 3D Geometry with the TI-Nspire™ CAS Handheld                                                                     | Saturday | 11:00 a.m. - 12:00 p.m. | Bjørn Felsager    | Convention Ctr. | 121 C       |
| 349 | Exploring Points of Concurrency in the TI-84 Plus Silver Edition Graphing Calculator Using Simple Programs              | Saturday | 11:00 a.m. - 12:00 p.m. | Edsel Baker       | Marriott        | Franklin 13 |
| 374 | TI-Nspire™ Technology for Beginner Geometry Teachers                                                                    | Saturday | 1:00 p.m. - 2:00 p.m.   | Rachael Gorsuch   | Convention Ctr. | 121 B       |
| 375 | Old School Geometry on a New School Device                                                                              | Saturday | 1:00 p.m. - 2:00 p.m.   | Johnny Ashurst    | Convention Ctr. | 121 C       |
| 420 | Capture the Geometry with the TI-Nspire™ Family of Handhelds                                                            | Saturday | 2:15 p.m. - 3:45 p.m.   | Karen Campe       | Convention Ctr. | 121 C       |

# Sessions by Subject

| No.                       | Title                                                                                                                           | Day      | Time                    | Presenter                | Location        | Room        |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|--------------------------|-----------------|-------------|
| <b>GEOMETRY</b>           |                                                                                                                                 |          |                         |                          |                 |             |
| 430                       | Lunes of Hippocrates and the Wheel of Theodorus                                                                                 | Saturday | 2:15 p.m. - 3:45 p.m.   | Susan Howe               | Marriott        | Franklin 4  |
| 464                       | Transitioning Through Geometry in the CCSS                                                                                      | Saturday | 4:00 p.m. - 5:30 p.m.   | Ellen Johnston           | Convention Ctr. | 121 B       |
| 465                       | All Sorts of 2D and 3D Dynamic Investigations Allowed by the Direct Manipulation of Lots of Parameters in TI-Nspire™ Technology | Saturday | 4:00 p.m. - 5:30 p.m.   | Jean-Jacques Dahan       | Convention Ctr. | 121 C       |
| <b>MIDDLE GRADES MATH</b> |                                                                                                                                 |          |                         |                          |                 |             |
| 41                        | The Good, the Bad, & the Ugly: Fractions? Teaching & Learning with TI-34 MultiView™ Scientific Calculator.                      | Friday   | 10:15 a.m. - 11:15 a.m. | Chris Ruda               | Marriott        | Franklin 11 |
| 42                        | STEM, EL and <i>Your</i> Community Using the TI-Nspire™ Handheld                                                                | Friday   | 10:15 a.m. - 11:15 a.m. | Jennifer Toelken         | Marriott        | Franklin 12 |
| 43                        | Using the TI-Navigator™ Classroom Learning System and TI-73 Explorer™ Graphing Calculators to Explore Math in the Movies        | Friday   | 10:15 a.m. - 11:15 a.m. | Melissa Jackson          | Marriott        | Franklin 13 |
| 78                        | TI-84 Plus Silver Edition Graphing Calculator Apps for Middle School and Algebra 1                                              | Friday   | 11:30 a.m. - 12:30 p.m. | Gina Allred              | Marriott        | Franklin 4  |
| 84                        | Middle School Activities Using the TI-84 Plus Silver Edition Graphing Calculator                                                | Friday   | 11:30 a.m. - 12:30 p.m. | Sarah Bauguss            | Marriott        | Franklin 11 |
| 85                        | Infusing Technology into the Middle School Mathematics Classroom with Common Core State Standards                               | Friday   | 11:30 a.m. - 12:30 p.m. | Vanessa Wimberly, M. Ed. | Marriott        | Franklin 12 |
| 86                        | Pump It Up                                                                                                                      | Friday   | 11:30 a.m. - 12:30 p.m. | Susan Riker              | Marriott        | Franklin 13 |
| 120                       | TI-84 Plus C Silver Edition Graphing Calculators in the 8th Grade Math Curriculum                                               | Friday   | 1:30 p.m. - 2:30 p.m.   | Fan Disher               | Marriott        | Franklin 2  |
| 127                       | Dynamic Graphics Using Sliders with the TI-Nspire™ CAS Handheld                                                                 | Friday   | 1:30 p.m. - 2:30 p.m.   | Eduardo Basurto          | Marriott        | Franklin 11 |
| 128                       | Make Connections and Reason Algebraically with the TI-Nspire™ Handheld                                                          | Friday   | 1:30 p.m. - 2:30 p.m.   | Gloria Beswick           | Marriott        | Franklin 12 |
| 129                       | Mobile Labs: Using Roving Technology Labs to Teach Math and Science in Middle School Classrooms                                 | Friday   | 1:30 p.m. - 2:30 p.m.   | Denise Johnson           | Marriott        | Franklin 13 |
| 170                       | Connect Your Middle School Students to the Math Using TI-Nspire™ CX CAS Handhelds and the TI-Nspire™ Navigator™ System          | Friday   | 2:45 p.m. - 4:15 p.m.   | Karen Cockburn           | Marriott        | Franklin 11 |
| 171                       | The TI-Nspire™ Handheld for Middle School Mathematics (Including 6th Grade)                                                     | Friday   | 2:45 p.m. - 4:15 p.m.   | Patsy Fagan              | Marriott        | Franklin 12 |
| 213                       | Data Gathering Activities with the TI-Nspire™ Handheld                                                                          | Friday   | 4:30 p.m. - 5:30 p.m.   | Valerie Hudson           | Marriott        | Franklin 11 |
| 214                       | Exploring Middle School Mathematics Using the TI-Nspire™ CX Handheld                                                            | Friday   | 4:30 p.m. - 5:30 p.m.   | Blake Helm               | Marriott        | Franklin 12 |
| 248                       | Middle School Activities Using the TI-84 Plus C Silver Edition Graphing Calculator                                              | Saturday | 8:00 a.m. - 9:30 a.m.   | Fred Decovsky            | Marriott        | Franklin 1  |

# Sessions by Subject

**No. Title**

**Day**

**Time**

**Presenter**

**Location**

**Room**

## MIDDLE GRADES MATH

|     |                                                                                                                                                            |          |                         |                              |                 |             |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|------------------------------|-----------------|-------------|
| 257 | Common Core Got You Down?                                                                                                                                  | Saturday | 8:00 a.m. - 9:30 a.m.   | Miguel Garcia                | Marriott        | Franklin 11 |
| 258 | M&M's® and More: Data Analysis for Middle School Grades Using the TI-Nspire™ Handheld                                                                      | Saturday | 8:00 a.m. - 9:30 a.m.   | Beth Smith                   | Marriott        | Franklin 12 |
| 259 | Dealing with Data in Middle Grades Using Multiple Representations and the TI-84 Plus Graphing Calculator Family                                            | Saturday | 8:00 a.m. - 9:30 a.m.   | Jane Barnard                 | Marriott        | Franklin 13 |
| 302 | Incorporating Texas Instruments Graphing Calculators in Middle School Math                                                                                 | Saturday | 9:45 a.m. - 10:45 a.m.  | Mary Burr                    | Marriott        | Franklin 11 |
| 304 | TI-73 Explorer™, TI-83 Plus and TI-84 Plus Silver Edition Graphing Calculators: Fantastic Instructional Tools for Grades 6 & 7 Common Core State Standards | Saturday | 9:45 a.m. - 10:45 a.m.  | Judy Wheeler                 | Marriott        | Franklin 13 |
| 347 | Mr. Magoo's Murder: The TI-84 Plus Silver Edition Graphing Calculator                                                                                      | Saturday | 11:00 a.m. - 12:00 p.m. | Leann Rains                  | Marriott        | Franklin 11 |
| 348 | Picture This: Calculating Perimeter and Area Using Images of Real-life Objects and TI-Nspire™ Technology                                                   | Saturday | 11:00 a.m. - 12:00 p.m. | Mayra Chao                   | Marriott        | Franklin 12 |
| 370 | The TI-Nspire™ Navigator™ NC System and Google Docs: a Perfect Pair                                                                                        | Saturday | 1:00 p.m. - 2:00 p.m.   | Melfried Olson               | Convention Ctr. | 120 A       |
| 383 | Middle School Activities Using the TI-84 Plus C Silver Edition Graphing Calculator                                                                         | Saturday | 1:00 p.m. - 2:00 p.m.   | Fred Decovsky                | Marriott        | Franklin 1  |
| 392 | Apps on the TI-83 Plus and TI-84 Plus Silver Edition Graphing Calculators: Who Knew?                                                                       | Saturday | 1:00 p.m. - 2:00 p.m.   | Donna Harris                 | Marriott        | Franklin 11 |
| 393 | Never Used a TI-Nspire™ Handheld or a TI-Nspire™ Navigator™ System? Come and Learn What All the Excitement is About.                                       | Saturday | 1:00 p.m. - 2:00 p.m.   | Scott Powell                 | Marriott        | Franklin 12 |
| 394 | Five Things You Might Not Know You Can Do with a TI-73 Explorer™ Graphing Calculator                                                                       | Saturday | 1:00 p.m. - 2:00 p.m.   | Ray O'Brien                  | Marriott        | Franklin 13 |
| 437 | Curiosity Killed the Boring Classroom: Motivating Middle School Math Students                                                                              | Saturday | 2:15 p.m. - 3:45 p.m.   | Maria Benzon                 | Marriott        | Franklin 11 |
| 438 | Inequalities from the University to the School Using the TI-Nspire™ CAS Handheld                                                                           | Saturday | 2:15 p.m. - 3:45 p.m.   | Manuel Antonio Montero Gaona | Marriott        | Franklin 12 |
| 439 | Using the TI-73 Explorer™ Graphing Calculator in Middle Grades                                                                                             | Saturday | 2:15 p.m. - 3:45 p.m.   | Valerie Hudson               | Marriott        | Franklin 13 |
| 482 | Two, Four Six, Eight: the TI-73 Explorer™ Graphing Calculator is Beyond Great                                                                              | Saturday | 4:00 p.m. - 5:30 p.m.   | Terrie Poehl                 | Marriott        | Franklin 11 |
| 483 | What's an English Teacher Doing in a Mathematics Classroom?                                                                                                | Saturday | 4:00 p.m. - 5:30 p.m.   | Ray Williams                 | Marriott        | Franklin 12 |
| 484 | Meeting Middle School Students' Differentiated Needs Using the TI-84 Plus Silver Edition Graphing Calculator                                               | Saturday | 4:00 p.m. - 5:30 p.m.   | Pareesa Shirazi              | Marriott        | Franklin 13 |

## MIDDLE GRADES SCIENCE

|     |                                                                                                          |          |                         |               |                 |       |
|-----|----------------------------------------------------------------------------------------------------------|----------|-------------------------|---------------|-----------------|-------|
| 51  | Probing for Excellence                                                                                   | Friday   | 11:30 a.m. - 12:30 p.m. | Mike Cimino   | Convention Ctr. | 113 C |
| 180 | Quick Labs                                                                                               | Friday   | 4:30 p.m. - 5:30 p.m.   | Tom Cauffield | Convention Ctr. | 113 C |
| 223 | Nspired Sciences for the Middle Grades                                                                   | Saturday | 8:00 a.m. - 9:30 a.m.   | David Young   | Convention Ctr. | 113 C |
| 313 | Discovering Variation Within and Between Species Using the TI-84 Plus Silver Edition Graphing Calculator | Saturday | 11:00 a.m. - 12:00 p.m. | Peggy Welch   | Convention Ctr. | 113 C |
| 369 | Earth Science Nspired                                                                                    | Saturday | 1:00 p.m. - 2:00 p.m.   | Tami Plein    | Convention Ctr. | 119 B |

# Sessions by Subject

| No.                | Title                                                                                             | Day      | Time                    | Presenter                | Location        | Room       |
|--------------------|---------------------------------------------------------------------------------------------------|----------|-------------------------|--------------------------|-----------------|------------|
| <b>PHYSICS</b>     |                                                                                                   |          |                         |                          |                 |            |
| 8                  | Inquiry Approach to Data Collection in Physics                                                    | Friday   | 10:15 a.m. - 11:15 a.m. | Rob Reniewicki           | Convention Ctr. | 113 C      |
| 94                 | Parabolas in the Real World: New Looks at Old Problems                                            | Friday   | 1:30 p.m. - 2:30 p.m.   | Fred Browning            | Convention Ctr. | 113 C      |
| 137                | Nspiring Fun Physics Labs                                                                         | Friday   | 2:45 p.m. - 4:15 p.m.   | Linda Antinone           | Convention Ctr. | 113 C      |
| 263                | The Mathematics of Pulsars and Exoplanets Using the TI-Nspire™ CAS Handheld                       | Saturday | 9:45 a.m. - 10:45 a.m.  | Stephen Broderick        | Convention Ctr. | 111 B      |
| 268                | Discovering Understanding Through Data Collection                                                 | Saturday | 9:45 a.m. - 10:45 a.m.  | Paul Williams            | Convention Ctr. | 113 C      |
| 358                | Going <i>Trig-less</i> : Using the TI-Nspire™ Handheld for Graphical Vector Resolution            | Saturday | 1:00 p.m. - 2:00 p.m.   | Shawn Schlueter          | Convention Ctr. | 113 C      |
| 403                | Physics, Math and Texas Instruments Education Technology: Perfect Recipe for an Integrated Course | Saturday | 2:15 p.m. - 3:45 p.m.   | Angeles Dominguez        | Convention Ctr. | 113 C      |
| 441                | TI-Nspire™ Technology and Vernier® DataQuest™ App: Physics Made Easy                              | Saturday | 4:00 p.m. - 5:30 p.m.   | Karlheinz Haas           | Convention Ctr. | 109 B      |
| 448                | Physics Experiments from All Over the World with TI-Nspire™ Technology                            | Saturday | 4:00 p.m. - 5:30 p.m.   | Cathy Baars              | Convention Ctr. | 113 C      |
| <b>PRECALCULUS</b> |                                                                                                   |          |                         |                          |                 |            |
| 32                 | Precalculus, TI-Nspire™ Handhelds and TI-Nspire™ CAS Handhelds: A Perfect Match                   | Friday   | 10:15 a.m. - 11:15 a.m. | Ann Davidian             | Convention Ctr. | 126 B      |
| 35                 | Looking at Finance Applications with TI-SmartView™ Emulator for TI-Nspire™                        | Friday   | 10:15 a.m. - 11:15 a.m. | Josh Berberian           | Marriott        | Franklin 4 |
| 75                 | Math and Physics in Music with the TI-Nspire™ Handheld                                            | Friday   | 11:30 a.m. - 12:30 p.m. | Prudence Cain            | Convention Ctr. | 126 B      |
| 118                | Modeling Exponential and Log Functions Using the TI-Nspire™ CAS Handheld                          | Friday   | 1:30 p.m. - 2:30 p.m.   | Matthew Owens            | Convention Ctr. | 126 B      |
| 138                | Parabolas, Ellipses & Hyperbolas: From Paper Folding to TI-Nspire™ Technology (and even iPad®)    | Friday   | 2:45 p.m. - 4:15 p.m.   | Arthur Mabbott           | Convention Ctr. | 114        |
| 161                | F <sup>4</sup> : Four Favorite Fabulous Functions                                                 | Friday   | 2:45 p.m. - 4:15 p.m.   | Robin Levine-Wissing     | Convention Ctr. | 126 B      |
| 162                | Using the TI-84 Plus C Silver Edition Graphing Calculator to Connect Functions and the Real World | Friday   | 2:45 p.m. - 4:15 p.m.   | Gloria Barrett           | Marriott        | Franklin 1 |
| 204                | Creating Polar Flowers on the TI-Nspire™ Handheld                                                 | Friday   | 4:30 p.m. - 5:30 p.m.   | Joy Brokes               | Convention Ctr. | 126 B      |
| 207                | Parametric Representation on the TI-84 Plus Silver Edition Graphing Calculator                    | Friday   | 4:30 p.m. - 5:30 p.m.   | Richard Parr             | Marriott        | Franklin 4 |
| 247                | Energizing and Connecting for Student Understanding Using the TI-Nspire™ Navigator™ System        | Saturday | 8:00 a.m. - 9:30 a.m.   | Deborah Kula             | Convention Ctr. | 126 B      |
| 279                | Use TI-Nspire™ Technology to Create a Video                                                       | Saturday | 9:45 a.m. - 10:45 a.m.  | Marsha Guntharp          | Convention Ctr. | 119 B      |
| 292                | What's My Vector?                                                                                 | Saturday | 9:45 a.m. - 10:45 a.m.  | Gina Foletta             | Convention Ctr. | 126 B      |
| 337                | Approximation of Functions with the TI-Nspire™ CAS Handheld                                       | Saturday | 11:00 a.m. - 12:00 p.m. | Jose Luis Espinosa Reina | Convention Ctr. | 126 B      |

# Sessions by Subject

| No. | Title | Day | Time | Presenter | Location | Room |
|-----|-------|-----|------|-----------|----------|------|
|-----|-------|-----|------|-----------|----------|------|

## PRECALCULUS

|     |                                                                                                                            |          |                         |                       |                 |            |
|-----|----------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|-----------------------|-----------------|------------|
| 340 | The TI-84 Plus Silver Edition Graphing Calculator and TI-Navigator™ Classroom Learning System in the Precalculus Classroom | Saturday | 11:00 a.m. - 12:00 p.m. | Jan Mitchener         | Marriott        | Franklin 4 |
| 382 | Making a Rainbow of Colors: Probing with pH, Temperature and TI-Nspire™ Technology                                         | Saturday | 1:00 p.m. - 2:00 p.m.   | Kimberly Reese        | Convention Ctr. | 126 B      |
| 385 | Series Formulas Discovered by TI-84 Plus Silver Edition Graphing Calculator and Verified by Mathematical Induction         | Saturday | 1:00 p.m. - 2:00 p.m.   | Paul Foerster         | Marriott        | Franklin 4 |
| 415 | Our Favorite TI-Nspire™ Activities for Precalculus Bring the Common Core State Standards to Life                           | Saturday | 2:15 p.m. - 3:45 p.m.   | Aurelia Weil          | Convention Ctr. | 120 A      |
| 427 | Nspired to Do Math in the Real World                                                                                       | Saturday | 2:15 p.m. - 3:45 p.m.   | Linda Antinone        | Convention Ctr. | 126 B      |
| 472 | Making Connections in the Trigonometry Classroom with the TI-Nspire™ Handheld                                              | Saturday | 4:00 p.m. - 5:30 p.m.   | Scott Knapp           | Convention Ctr. | 126 B      |
| 474 | Using the TI-84 Plus C Silver Edition Graphing Calculator to Connect Functions and the Real World                          | Saturday | 4:00 p.m. - 5:30 p.m.   | Gloria Barrett        | Marriott        | Franklin 2 |
| 475 | That's the Way the Ball Bounces                                                                                            | Saturday | 4:00 p.m. - 5:30 p.m.   | Michelle Merriweather | Marriott        | Franklin 4 |

## PROGRAMMING

|     |                                                                                                               |          |                         |                      |                 |       |
|-----|---------------------------------------------------------------------------------------------------------------|----------|-------------------------|----------------------|-----------------|-------|
| 18  | Lua for All Teachers                                                                                          | Friday   | 10:15 a.m. - 11:15 a.m. | John Hanna           | Convention Ctr. | 119 A |
| 20  | Authoring Tips and Tricks                                                                                     | Friday   | 10:15 a.m. - 11:15 a.m. | Bryson Perry         | Convention Ctr. | 120 A |
| 99  | Why Learn Lua? It's Worth It!                                                                                 | Friday   | 1:30 p.m. - 2:30 p.m.   | Marc Garneau         | Convention Ctr. | 116   |
| 142 | Introduction to Writing Code to Program the TI-Nspire™ Family of Handhelds                                    | Friday   | 2:45 p.m. - 4:15 p.m.   | Becky Underwood      | Convention Ctr. | 116   |
| 273 | Writing CAS Programs for the TI-Nspire™ CAS Handheld                                                          | Saturday | 9:45 a.m. - 10:45 a.m.  | George Marino        | Convention Ctr. | 116   |
| 318 | Teaching Beginner Programming Concepts with the TI-83 Plus and TI-84 Plus Silver Edition Graphing Calculators | Saturday | 11:00 a.m. - 12:00 p.m. | Christopher Mitchell | Convention Ctr. | 116   |
| 453 | Dynamic Programming with the TI-83 Plus and TI-84 Plus Silver Edition Graphing Calculators                    | Saturday | 4:00 p.m. - 5:30 p.m.   | Christopher Langhorn | Convention Ctr. | 116   |

## STATISTICS

|     |                                                                                                                          |        |                         |                |                 |            |
|-----|--------------------------------------------------------------------------------------------------------------------------|--------|-------------------------|----------------|-----------------|------------|
| 26  | Exploring Chi Square with the TI-Nspire™ Handheld and TI-Nspire™ Navigator™ System                                       | Friday | 10:15 a.m. - 11:15 a.m. | Ray Fox        | Convention Ctr. | 122 A      |
| 33  | Introducing the Chi Square Goodness of Fit Test with a Simulation on the TI-84 Plus C Silver Edition Graphing Calculator | Friday | 10:15 a.m. - 11:15 a.m. | Chris True     | Marriott        | Franklin 1 |
| 36  | Exploring the Power of a Test Using the TI-84 Plus Silver Edition Graphing Calculator: A Graphical Approach              | Friday | 10:15 a.m. - 11:15 a.m. | Edsel Baker    | Marriott        | Franklin 6 |
| 69  | Teach AP® Statistics Next Year with TI-Nspire™ Software                                                                  | Friday | 11:30 a.m. - 12:30 p.m. | John Mahoney   | Convention Ctr. | 122 A      |
| 80  | Statistics for Middle School Using the TI-73 Explorer™ Graphing Calculator                                               | Friday | 11:30 a.m. - 12:30 p.m. | Gail Gallitano | Marriott        | Franklin 7 |
| 112 | Statistical Illumination                                                                                                 | Friday | 1:30 p.m. - 2:30 p.m.   | Allan Rossman  | Convention Ctr. | 122 A      |



# Sessions by Subject

| No.               | Title                                                                                                                      | Day      | Time                    | Presenter               | Location        | Room       |
|-------------------|----------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|-------------------------|-----------------|------------|
| <b>STATISTICS</b> |                                                                                                                            |          |                         |                         |                 |            |
| 121               | Data, Regression and Stats, Oh My! Clearing Up Misconceptions While Integrating Statistics Throughout the Curriculum.      | Friday   | 1:30 p.m. - 2:30 p.m.   | Todd Sikora             | Marriott        | Franklin 4 |
| 131               | Teaching the Statistics Strand in Common Core Using the TI-Nspire™ Handheld                                                | Friday   | 2:45 p.m. - 4:15 p.m.   | Sharon Bruce            | Convention Ctr. | 110 AB     |
| 155               | Designing Monte Carlo Simulations Using the TI-Nspire™ CAS Handheld                                                        | Friday   | 2:45 p.m. - 4:15 p.m.   | Natalie Jakucyn         | Convention Ctr. | 122 A      |
| 198               | Nspired Statistics: Using the TI-Nspire™ CAS Handheld for the First Time in AP* Statistics                                 | Friday   | 4:30 p.m. - 5:30 p.m.   | Steve Phelps            | Convention Ctr. | 122 A      |
| 241               | Linear Regression in Context Using the TI-Nspire™ CAS Handhelds and TI-Nspire™ Navigator™ System                           | Saturday | 8:00 a.m. - 9:30 a.m.   | Armando Lopez-Zamudio   | Convention Ctr. | 122 A      |
| 249               | Type II Error And Power of A Test: Statistics with the TI-84 Plus C Silver Edition Graphing Calculator                     | Saturday | 8:00 a.m. - 9:30 a.m.   | Mike Koehler            | Marriott        | Franklin 2 |
| 264               | Bringing Data and Statistics to Life with the TI-Nspire™ Handheld                                                          | Saturday | 9:45 a.m. - 10:45 a.m.  | Abel Maestas            | Convention Ctr. | 112 A      |
| 269               | Nspired Statistics on iPad®                                                                                                | Saturday | 9:45 a.m. - 10:45 a.m.  | Ray Barton              | Convention Ctr. | 114        |
| 286               | Using the TI-Nspire™ Handheld in a Stats Classroom                                                                         | Saturday | 9:45 a.m. - 10:45 a.m.  | Matt Almon              | Convention Ctr. | 122 A      |
| 331               | Graphical Representation for the Statistical Interpretation of Data                                                        | Saturday | 11:00 a.m. - 12:00 p.m. | Rafael Canales-Pastrana | Convention Ctr. | 122 A      |
| 355               | <i>Just the Stats, Ma'am</i> , Using TI-Nspire™ Technology                                                                 | Saturday | 1:00 p.m. - 2:00 p.m.   | Kelly Soule             | Convention Ctr. | 112 B      |
| 376               | Helping Students Reach Statistics: Using TI-Nspire™ Technology to Incorporate Statistics throughout Mathematics            | Saturday | 1:00 p.m. - 2:00 p.m.   | Timothy Barnes          | Convention Ctr. | 122 A      |
| 421               | TI-Nspire™ Navigator™ System Data Collection 101: Use Quick Polls to Quickly Get Class Data for Analysis                   | Saturday | 2:15 p.m. - 3:45 p.m.   | Lee Kucera              | Convention Ctr. | 122 A      |
| 466               | Exploring Variation in the TI-Nspire™ Classroom                                                                            | Saturday | 4:00 p.m. - 5:30 p.m.   | Mike Bevelacqua         | Convention Ctr. | 122 A      |
| <b>TECHNOLOGY</b> |                                                                                                                            |          |                         |                         |                 |            |
| 2                 | Using the TI-Nspire™ CAS Handheld with TI-Nspire™ CX Navigator™ System: Lessons Learned                                    | Friday   | 10:15 a.m. - 11:15 a.m. | David Hallas            | Convention Ctr. | 110 AB     |
| 9                 | Be Nspired by Your iPad®                                                                                                   | Friday   | 10:15 a.m. - 11:15 a.m. | Andy Kemp               | Convention Ctr. | 114        |
| 11                | Using TI-Nspire™ CAS Handhelds and TI-Nspire™ Navigator™ Systems in a College Algebra Classroom: Questions and Our Answers | Friday   | 10:15 a.m. - 11:15 a.m. | Tharanga Wijetunge      | Convention Ctr. | 115 B      |
| 45                | Bringing the TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System into Your Math Classroom                             | Friday   | 11:30 a.m. - 12:30 p.m. | Tom Steinke             | Convention Ctr. | 110 AB     |
| 52                | Turning iCan't into iCan with the iPad®: Teaching and Learning Using the iPad® in a High School Mathematics Classroom      | Friday   | 11:30 a.m. - 12:30 p.m. | Andrew Benzing          | Convention Ctr. | 114        |
| 79                | Dust off your TI-Navigator™ Classroom Learning System                                                                      | Friday   | 11:30 a.m. - 12:30 p.m. | Kymn Van Dyken          | Marriott        | Franklin 6 |



# Sessions by Subject

| No. | Title | Day | Time | Presenter | Location | Room |
|-----|-------|-----|------|-----------|----------|------|
|-----|-------|-----|------|-----------|----------|------|

## TECHNOLOGY

|     |                                                                                                                                                                              |          |                         |                     |                 |            |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------|---------------------|-----------------|------------|
| 88  | Making the Leap: Instituting TI-Nspire™ Technology across Math and Science in High School                                                                                    | Friday   | 1:30 p.m. - 2:30 p.m.   | Barbara Ward        | Convention Ctr. | 110 AB     |
| 97  | What's New? TI's Latest Addition to Integrating Technology.                                                                                                                  | Friday   | 1:30 p.m. - 2:30 p.m.   | Dona McSpadden      | Convention Ctr. | 115 B      |
| 98  | Exploring Uses for PhET™ Web-based Interactive Simulations: Some Sims Also Available for TI-Nspire™ CX Handheld                                                              | Friday   | 1:30 p.m. - 2:30 p.m.   | Trish Loeblein      | Convention Ctr. | 115 C      |
| 140 | Exponential Functions with TI-Nspire™ CAS Handheld in Your Common Core Classes                                                                                               | Friday   | 2:45 p.m. - 4:15 p.m.   | Michael Lutz        | Convention Ctr. | 115 B      |
| 141 | Aerodynamic Wind Tunnel in a School Hallway with the TI-Nspire™ CAS Handheld and TI-84 Plus Silver Edition Graphing Calculator                                               | Friday   | 2:45 p.m. - 4:15 p.m.   | Jeffery Thompson    | Convention Ctr. | 115 C      |
| 164 | What Else can my TI-84 Plus Silver Edition Graphing Calculator Do? Advanced Features for Teaching High School Math.                                                          | Friday   | 2:45 p.m. - 4:15 p.m.   | Irina Lyublinskaya  | Marriott        | Franklin 4 |
| 174 | Go Paperless with TI-Nspire™ Navigator™ System and More!                                                                                                                     | Friday   | 4:30 p.m. - 5:30 p.m.   | Sarah Bauguss       | Convention Ctr. | 110 AB     |
| 183 | The Three Rs: Rigor, Relevance and Rates: Changing Reactions in Science and Math Applications                                                                                | Friday   | 4:30 p.m. - 5:30 p.m.   | Darlene Villafranca | Convention Ctr. | 115 B      |
| 226 | Real-World Applications Using Vernier® DataQuest and the TI-Nspire™ Navigator™ System Live Presenter for Data Collection                                                     | Saturday | 8:00 a.m. - 9:30 a.m.   | JoAnn Miltenberg    | Convention Ctr. | 115 B      |
| 227 | TI-Nspire™ Technology and the Flipped Classroom: The Possibilities for Blended Learning are Endless                                                                          | Saturday | 8:00 a.m. - 9:30 a.m.   | Richard Snow        | Convention Ctr. | 115 C      |
| 231 | The TI-Nspire™ and Standards for Mathematical Practice: A Beautiful Match                                                                                                    | Saturday | 8:00 a.m. - 9:30 a.m.   | Katie England       | Convention Ctr. | 118 B      |
| 234 | TI PublishView™ Documents: Creating and Using                                                                                                                                | Saturday | 8:00 a.m. - 9:30 a.m.   | Brenda Peterman     | Convention Ctr. | 119 B      |
| 272 | Engaging Middle School Math and Science Students: Interactive Activities Using TI-84 Plus Silver Edition Graphing Calculators and TI-Nspire™ Handhelds with Vernier® Sensors | Saturday | 9:45 a.m. - 10:45 a.m.  | Herb Green          | Convention Ctr. | 115 C      |
| 316 | Creating a Collaborative Classroom Environment: TI-Nspire™ Activities on the Interactive Whiteboard                                                                          | Saturday | 11:00 a.m. - 12:00 p.m. | Deana Deichert      | Convention Ctr. | 115 B      |
| 317 | Advanced Quantitative Reasoning: A Post-Algebra II Course Using the TI-Nspire™ CAS Handheld                                                                                  | Saturday | 11:00 a.m. - 12:00 p.m. | Greg Foley          | Convention Ctr. | 115 C      |
| 329 | Hidden Gem: Question Application in the TI-Nspire™ Teacher Software                                                                                                          | Saturday | 11:00 a.m. - 12:00 p.m. | Rodney Anderson     | Convention Ctr. | 121 B      |
| 361 | Trigonometry Word Problem Using the TI-Nspire™ Navigator™ System                                                                                                             | Saturday | 1:00 p.m. - 2:00 p.m.   | Scott Washburn      | Convention Ctr. | 115 B      |
| 362 | Infusing Reasoning and Sense-Making Using TI-Nspire™ Technology                                                                                                              | Saturday | 1:00 p.m. - 2:00 p.m.   | Dan Ilaria          | Convention Ctr. | 115 C      |
| 400 | Simulating and Building a STEM Instrument for the Science Classroom                                                                                                          | Saturday | 2:15 p.m. - 3:45 p.m.   | Fred Fotsch         | Convention Ctr. | 112 B      |
| 404 | TI-Nspire™ App for iPad®: You Can Finally Bring Your iPad® into the Math Classroom to Learn Math                                                                             | Saturday | 2:15 p.m. - 3:45 p.m.   | Allan Bellman       | Convention Ctr. | 114        |
| 406 | Get Started with Common Core Using the TI-Nspire™ Handheld                                                                                                                   | Saturday | 2:15 p.m. - 3:45 p.m.   | Michelle Bonds      | Convention Ctr. | 115 B      |
| 407 | Nspire Students with Technology via Data Collection Using Balloons and Other Fun Resources                                                                                   | Saturday | 2:15 p.m. - 3:45 p.m.   | Kathleen McKinley   | Convention Ctr. | 115 C      |

# Friday Sessions by Time



# Sessions by Time

| Subject                          | No. | Title                                                                                                                                    | Presenter          | Location        | Room        |
|----------------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|-------------|
| <b>Friday 10:15 – 11:15 a.m.</b> |     |                                                                                                                                          |                    |                 |             |
| Algebra I                        | 19  | Using the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature for A Modeling Approach to Algebra                                 | Judith Olson       | Convention Ctr. | 119 B       |
| Algebra I                        | 21  | Algebra and More with the Common Core                                                                                                    | Heather Riddle     | Convention Ctr. | 120 B       |
| Algebra I                        | 22  | Experience Common Core State Standards Using the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature                             | Jean Annette Jones | Convention Ctr. | 120 C       |
| Algebra I                        | 23  | The TI-Nspire™ Handheld and the Algebra CCSS                                                                                             | Pam Harris         | Convention Ctr. | 121 A       |
| Algebra II                       | 28  | Developing Symbolic Meaning with Dynamically Connected Representations                                                                   | Doug Lapp          | Convention Ctr. | 123         |
| Algebra II                       | 29  | An Introduction to Using CAS with Your Students Who Find Mathematics Difficult                                                           | Beverly Farahani   | Convention Ctr. | 124         |
| Algebra II                       | 30  | Listing Slightly to Port, but Otherwise OK                                                                                               | Jim Nakamoto       | Convention Ctr. | 125         |
| Algebra II                       | 38  | Simulations for Algebra through Precalculus Using the TI-84 Plus Silver Edition Graphing Calculator                                      | Alice Hess         | Marriott        | Franklin 8  |
| Assessment                       | 4   | The TI-Nspire™ Navigator™ System: A GPS for Student Learning                                                                             | Jeff Van Arnhem    | Convention Ctr. | 112 A       |
| Authoring                        | 13  | Using Texas Instruments Technology to Develop Common Core State Standards Lessons                                                        | Linda Griffith     | Convention Ctr. | 116         |
| Biology                          | 6   | Anatomical Analysis of <i>Your Heart</i> Through EKG Using the TI-Nspire™ Learning Handheld and TI-Nspire™ Lab Cradle                    | Rob Adams          | Convention Ctr. | 113 A       |
| Calculus                         | 14  | Workshop for New TI-Nspire™ CAS Handheld Users Teaching Calculus                                                                         | Patricia Casey     | Convention Ctr. | 117         |
| Elementary Math                  | 40  | Develop Number Sense for Grades 4 – 8 with the TI-73 Explorer™ Graphing Calculator and TI-84 Plus Silver Edition Graphing Calculator     | Stuart Moskowitz   | Marriott        | Franklin 10 |
| General Interest                 | 27  | <i>Donors Choose</i> to Help You Get Texas Instruments Technology                                                                        | Lisa Suarez        | Convention Ctr. | 122 B       |
| General Interest                 | 34  | Color on the TI-84 C Plus Silver Edition Graphing Calculator: Creatively and Effectively Utilize its Power in Your Mathematics Classroom | Tom Reardon        | Marriott        | Franklin 2  |
| General Interest                 | 37  | Motivating Students Using STEM Activities                                                                                                | Mary Lou Giannetto | Marriott        | Franklin 7  |
| General Math                     | 5   | Creating and Analyzing Position-Time Graphs Using the TI-Nspire™ Handheld and the TI-84 Plus Silver Edition Graphing Calculator          | Charla Holzbog     | Convention Ctr. | 112 B       |
| General Math                     | 15  | Common Core Meets TI-Nspire™ Technology                                                                                                  | Audrey Cucci       | Convention Ctr. | 118 A       |
| General Math                     | 16  | A Heart for Valentine's Day: Limits for Precalculus and Calculus Students and Superellipses                                              | Ron Lancaster      | Convention Ctr. | 118 B       |
| General Math                     | 17  | Use the TI-Nspire™ Handheld to Implement the Common Core                                                                                 | Sherri Abel        | Convention Ctr. | 118 C       |
| General Math                     | 39  | So You Have a Class Set of TI-84 Plus Silver Edition Graphing Calculators: Let's Take Advantage of the Free Apps                         | Beth Smith         | Marriott        | Franklin 9  |
| General Science                  | 1   | Measuring Mechanical Energy Transformations                                                                                              | Paul Williams      | Convention Ctr. | 109 B       |
| General Science                  | 3   | Overview of the Winning TI-Nspire™ STEM Project Challenge Entry Highlighting Student Product                                             | Brenda Peterman    | Convention Ctr. | 111 B       |
| General Science                  | 7   | Science Olympiad and Texas Instruments 2012-2013                                                                                         | Michael Smith      | Convention Ctr. | 113 B       |
| Geometry                         | 24  | Geometric Constructions Using the TI-Nspire™ Handheld to Meet the Common Core State Standards                                            | Jaime Burbano      | Convention Ctr. | 121 B       |
| Geometry                         | 25  | The Woe and Wonder                                                                                                                       | Katy Edgar         | Convention Ctr. | 121 C       |

# Sessions by Time

MARCH 8  
Friday

| Subject                               | No. | Title                                                                                                                                          | Presenter          | Location        | Room        |
|---------------------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|-------------|
| <b>Friday 10:15 – 11:15 a.m.</b>      |     |                                                                                                                                                |                    |                 |             |
| Middle Grades Math                    | 41  | The Good, the Bad, & the Ugly: Fractions? Teaching & Learning with TI-34 MultiView™ Scientific Calculator.                                     | Chris Ruda         | Marriott        | Franklin 11 |
| Middle Grades Math                    | 42  | STEM, EL and <i>Your</i> Community Using the TI-Nspire™ Handheld                                                                               | Jennifer Toelken   | Marriott        | Franklin 12 |
| Middle Grades Math                    | 43  | Using the TI-Navigator™ Classroom Learning System and TI-73 Explorer™ Graphing Calculators to Explore Math in the Movies                       | Melissa Jackson    | Marriott        | Franklin 13 |
| Physics                               | 8   | Inquiry Approach to Data Collection in Physics                                                                                                 | Rob Reniewicki     | Convention Ctr. | 113 C       |
| Precalculus                           | 32  | Precalculus, TI-Nspire™ CX Handhelds and TI-Nspire™ CAS Handhelds: A Perfect Match                                                             | Ann Davidian       | Convention Ctr. | 126 B       |
| Precalculus                           | 35  | Looking at Finance Applications with TI-SmartView™ Emulator for TI-Nspire™                                                                     | Josh Berberian     | Marriott        | Franklin 4  |
| Programming                           | 18  | Lua for <i>All</i> Teachers                                                                                                                    | John Hanna         | Convention Ctr. | 119 A       |
| Programming                           | 20  | Authoring Tips and Tricks                                                                                                                      | Bryson Perry       | Convention Ctr. | 120 A       |
| Statistics                            | 26  | Exploring Chi Square with the TI-Nspire™ Handheld and TI-Nspire™ Navigator™ System                                                             | Ray Fox            | Convention Ctr. | 122 A       |
| Statistics                            | 33  | Introducing the Chi Square Goodness of Fit Test with a Simulation on the TI-84 Plus C Silver Edition Graphing Calculator                       | Chris True         | Marriott        | Franklin 1  |
| Statistics                            | 36  | Exploring the Power of a Test Using the TI-84 Plus Silver Edition Graphing Calculator: A Graphical Approach                                    | Edsel Baker        | Marriott        | Franklin 6  |
| Technology                            | 2   | Using the TI-Nspire™ CAS Handheld with TI-Nspire™ Navigator™ System: Lessons Learned                                                           | David Hallas       | Convention Ctr. | 110 AB      |
| Technology                            | 9   | Be Nspired by Your iPad®                                                                                                                       | Andy Kemp          | Convention Ctr. | 114         |
| Technology                            | 11  | Using TI-Nspire™ CAS Handhelds and TI-Nspire™ Navigator™ Systems in a College Algebra Classroom: Questions and Our Answers                     | Tharanga Wijetunge | Convention Ctr. | 115 B       |
| <b>Friday 11:30 a.m. – 12:30 p.m.</b> |     |                                                                                                                                                |                    |                 |             |
| Algebra I                             | 48  | Exploring Population Growth Using the TI-Nspire™ Handheld and the TI-84 Plus Silver Edition Graphing Calculator                                | Lori Edwards       | Convention Ctr. | 112 B       |
| Algebra I                             | 61  | Using the TI-Nspire™ CAS Handheld to Master Trig Ratios                                                                                        | Allister Wadden    | Convention Ctr. | 119 A       |
| Algebra I                             | 64  | Physical Science + Algebra 1 + PBL + TI-Nspire™ CAS Handheld = A New Tech Way to Teach and Learn                                               | Sheryl Edwards     | Convention Ctr. | 120 B       |
| Algebra I                             | 77  | Never Programmed? No Problem! Write <i>Prompt-Store-Display</i> Programs for Algebra Using the TI-84 Plus C Silver Edition Graphing Calculator | Jim Haskins        | Marriott        | Franklin 2  |
| Algebra I                             | 81  | Grouping, Home Screen Sequencing, Web Plots and Other TI-84 Plus Silver Edition Graphing Calculator Strategies                                 | Johnny Ashurst     | Marriott        | Franklin 8  |
| Algebra II                            | 71  | Thinking Graphically: Using Multiple Representations on the TI-Nspire™ CAS Handheld as a New Way to Solve Old Problems                         | Matt Rhodes        | Convention Ctr. | 123         |
| Algebra II                            | 73  | An Nspired Look at Transformations in Algebra                                                                                                  | Landy Godbold      | Convention Ctr. | 125         |
| Algebra II                            | 76  | Fun Stat Activities to Use with Your TI-84 Plus C Silver Edition Graphing Calculator                                                           | Sharon Cichocki    | Marriott        | Franklin 1  |
| Algebra II                            | 82  | CCSS + Interactive White Board + TI-84 Plus Silver Edition Graphing Calculator = Student Engagement                                            | Terry Politi       | Marriott        | Franklin 9  |
| Assessment                            | 47  | Formative Assessment: The Use of Multiple Representations to Help with Understanding                                                           | Sherrina Clark     | Convention Ctr. | 112 A       |
| Authoring                             | 56  | Conditional Formatting: Energize Your Documents                                                                                                | Ellen Browne       | Convention Ctr. | 116         |

# Sessions by Time

| Subject                               | No. | Title                                                                                                                 | Presenter                  | Location        | Room        |
|---------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------|-------------|
| <b>Friday 11:30 a.m. – 12:30 p.m.</b> |     |                                                                                                                       |                            |                 |             |
| Biology                               | 49  | Giving Data a Life of Its Own                                                                                         | Jeff Lukens                | Convention Ctr. | 113 A       |
| Calculus                              | 57  | Let's Explore the Derivative with the TI-Nspire™ CAS Handheld                                                         | Vicki Carter               | Convention Ctr. | 117         |
| Chemistry                             | 50  | H <sub>2</sub> O <sub>2</sub> : Friend or Foe?                                                                        | Ray Lesniewski             | Convention Ctr. | 113 B       |
| General Interest                      | 62  | Creating Questions Using the TI-Nspire™ Navigator™ System                                                             | Audrey Cucci               | Convention Ctr. | 119 B       |
| General Interest                      | 63  | Introduction to TI-Nspire™ Navigator™ Teacher Software PublishView™ Documents                                         | Patricia Brooks            | Convention Ctr. | 120 A       |
| General Interest                      | 70  | Exploring Online Resources for TI-Nspire™ Technology                                                                  | Thomas Coleman             | Convention Ctr. | 122 B       |
| General Interest                      | 74  | Introduction To Grant Writing: Beginning the Quest for Funding for Technology                                         | Louise Chapman             | Convention Ctr. | 126 A       |
| General Math                          | 58  | 3D Graphs Using a TI-Nspire™ CAS Handheld                                                                             | Juana Yadira Martín Perico | Convention Ctr. | 118 A       |
| General Math                          | 59  | Teaching Techniques for Digital Students Using the TI-Nspire™ Handheld                                                | Stephanie MacKay           | Convention Ctr. | 118 B       |
| General Math                          | 60  | Transitioning from the TI-84 Plus Silver Edition Graphing Calculator to the TI-Nspire™ Handheld                       | David Sword                | Convention Ctr. | 118 C       |
| General Science                       | 44  | Data Aggregation Without the Aggravation with the TI-Nspire™ Navigator™ System                                        | Peggy Welch                | Convention Ctr. | 109 B       |
| General Science                       | 46  | The Carbon Cycle and Climate Change with TI-Nspire™ Technology                                                        | Tom Green                  | Convention Ctr. | 111 B       |
| Geometry                              | 65  | TI-Nspire™ Handheld in Geometry: Using a Discrete Tool to Better Display Continuous Mathematics                       | Lois Paris                 | Convention Ctr. | 120 C       |
| Geometry                              | 67  | Make the Transformation: Geometry to Nspired Geometry                                                                 | Jamie Liptock              | Convention Ctr. | 121 B       |
| Geometry                              | 68  | TI-Nspire™ CAS Handheld: Construct the Points of Concurrency in a Triangle                                            | Ninamarie Sapuppo          | Convention Ctr. | 121 C       |
| Middle Grades Math                    | 78  | TI-84 Plus Silver Edition Graphing Calculator Apps for Middle School and Algebra 1                                    | Gina Allred                | Marriott        | Franklin 4  |
| Middle Grades Math                    | 84  | Middle School Activities Using the TI-84 Plus Silver Edition Graphing Calculator                                      | Sarah Bauguss              | Marriott        | Franklin 11 |
| Middle Grades Math                    | 85  | Infusing Technology into the Middle School Mathematics Classroom with Common Core State Standards                     | Vanessa Wimberly, M. Ed.   | Marriott        | Franklin 12 |
| Middle Grades Math                    | 86  | Pump It Up                                                                                                            | Susan Riker                | Marriott        | Franklin 13 |
| Middle Grades Science                 | 51  | Probing for Excellence                                                                                                | Mike Cimino                | Convention Ctr. | 113 C       |
| Precalculus                           | 75  | Math and Physics in Music with the TI-Nspire™ Handheld                                                                | Prudence Cain              | Convention Ctr. | 126 B       |
| Statistics                            | 69  | Teach AP* Statistics Next Year with TI-Nspire™ Software                                                               | John Mahoney               | Convention Ctr. | 122 A       |
| Statistics                            | 80  | Statistics for Middle School Using the TI-73 Explorer™ Graphing Calculator                                            | Gail Gallitano             | Marriott        | Franklin 7  |
| Technology                            | 45  | Bringing the TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System into Your Math Classroom                        | Tom Steinke                | Convention Ctr. | 110 AB      |
| Technology                            | 52  | Turning iCan't into iCan with the iPad®: Teaching and Learning Using the iPad® in a High School Mathematics Classroom | Andrew Benzing             | Convention Ctr. | 114         |
| Technology                            | 79  | Dust off your TI-Navigator™ Classroom Learning System                                                                 | Kymn Van Dyken             | Marriott        | Franklin 6  |

# Sessions by Time

MARCH 8  
Friday

| Subject                        | No. | Title                                                                                                                                                              | Presenter        | Location        | Room        |
|--------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| <b>Friday 1:30 – 2:30 p.m.</b> |     |                                                                                                                                                                    |                  |                 |             |
| Administrator                  | 113 | Changing Opportunities, Changing Lives with the TI MathForward™ Program                                                                                            | Alicia Page      | Convention Ctr. | 122 B       |
| Algebra I                      | 107 | Solving Systems Using the TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System                                                                                 | Julie Speelman   | Convention Ctr. | 120 B       |
| Algebra I                      | 108 | Getting Started with the TI-Nspire™ Handheld in Your Mathematics Classroom                                                                                         | Ruth Casey       | Convention Ctr. | 120 C       |
| Algebra I                      | 109 | Okay, I Have TI-Nspire™ Handhelds and the TI-Nspire™ Navigator™ System. Now What?                                                                                  | Marti Hoyt       | Convention Ctr. | 121 A       |
| Algebra I                      | 124 | Texas Instruments Technology and the Common Core for Algebra and Geometry                                                                                          | Linda Apicella   | Marriott        | Franklin 8  |
| Algebra II                     | 114 | Activity-based Regression Analysis Using the TI-84 Plus Silver Edition Graphing Calculator                                                                         | Cory Cloud       | Convention Ctr. | 123         |
| Algebra II                     | 115 | Investigating Function Transformations on the TI-Nspire™ Handheld                                                                                                  | Hugh Daniels     | Convention Ctr. | 124         |
| Algebra II                     | 116 | Teaching Conic Sections Using the TI-Nspire™ CAS Handheld                                                                                                          | David Scott      | Convention Ctr. | 125         |
| Algebra II                     | 119 | Gathering Data and Modeling Functions Using the TI-84 Plus C Silver Edition Graphing Calculator                                                                    | Diane Broberg    | Marriott        | Franklin 1  |
| Algebra II                     | 125 | Managing Different Graphing Calculators in the Classroom                                                                                                           | Sheila Horstman  | Marriott        | Franklin 9  |
| Assessment                     | 90  | Organizing Your Lessons with Questions                                                                                                                             | Denny St. John   | Convention Ctr. | 112 A       |
| Authoring                      | 104 | Related Rate Simulations                                                                                                                                           | Pat Mara         | Convention Ctr. | 119 A       |
| Biology                        | 92  | This Session Contains MSG: Math, Science and Genetics                                                                                                              | Shawn Schlueter  | Convention Ctr. | 113 A       |
| Calculus                       | 100 | Integrating the TI-Nspire™ CAS Handheld in Your AP* Calculus Curriculum                                                                                            | Kim Schjelderup  | Convention Ctr. | 117         |
| Chemistry                      | 91  | Determining Iodine Concentration in Water Using the TI-Nspire™ CAS Handheld and Colorimeter                                                                        | Lisa McGaw       | Convention Ctr. | 112 B       |
| Chemistry                      | 93  | How Do We Know What They Know in Chemistry? Formative Assessment in Chemistry.                                                                                     | Todd Morstein    | Convention Ctr. | 113 B       |
| Elementary Math                | 126 | Integrating Math, Science and Literacy in the Elementary Classroom                                                                                                 | Tami Plein       | Marriott        | Franklin 10 |
| General Interest               | 106 | Using the TI-Nspire™ Navigator™ NC System in a Laptop-ed Classroom                                                                                                 | David Young      | Convention Ctr. | 120 A       |
| General Interest               | 117 | Can't Afford Current Technology? Still Using a TI-83 Plus Graphing Calculator or TI-84 Plus Graphing Calculator? Get 200 Color Interactive Activities <i>Free!</i> | Tom Reardon      | Convention Ctr. | 126 A       |
| General Math                   | 95  | Well Known Thinking Errors and Other Teaching Ideas                                                                                                                | Andreas Pollack  | Convention Ctr. | 114         |
| General Math                   | 101 | Ultimate Brackets: A World Premier                                                                                                                                 | Nevil Hopley     | Convention Ctr. | 118 A       |
| General Math                   | 102 | Using the TI-Nspire™ Handheld to Teach Statistics for Common Core                                                                                                  | Joshua Underdonk | Convention Ctr. | 118 B       |
| General Science                | 87  | Nspired Forensics                                                                                                                                                  | Jacklyn Bonneau  | Convention Ctr. | 109 B       |
| Geometry                       | 110 | Students Engergize Class by Bringing <i>Their</i> World Into It                                                                                                    | Sandra Hocutt    | Convention Ctr. | 121 B       |
| Geometry                       | 111 | Nspired Constructions                                                                                                                                              | Stephen West     | Convention Ctr. | 121 C       |
| Middle Grades Math             | 120 | TI-84 Plus C Silver Edition Graphing Calculators in the 8th Grade Math Curriculum                                                                                  | Fan Disher       | Marriott        | Franklin 2  |



# Sessions by Time

| Subject                        | No. | Title                                                                                                                  | Presenter             | Location        | Room        |
|--------------------------------|-----|------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------|-------------|
| <b>Friday 1:30 – 2:30 p.m.</b> |     |                                                                                                                        |                       |                 |             |
| Middle Grades Math             | 127 | Dynamic Graphics Using Sliders with the TI-Nspire™ CAS Handheld                                                        | Eduardo Basurto       | Marriott        | Franklin 11 |
| Middle Grades Math             | 128 | Make Connections and Reason Algebraically with the TI-Nspire™ Handheld                                                 | Gloria Beswick        | Marriott        | Franklin 12 |
| Middle Grades Math             | 129 | Mobile Labs: Using Roving Technology Labs to Teach Math and Science in Middle School Classrooms                        | Denise Johnson        | Marriott        | Franklin 13 |
| Physics                        | 94  | Parabolas in the Real World: New Looks at Old Problems                                                                 | Fred Browning         | Convention Ctr. | 113 C       |
| Precalculus                    | 118 | Modeling Exponential and Log Functions Using the TI-Nspire™ CAS Handheld                                               | Matthew Owens         | Convention Ctr. | 126 B       |
| Programming                    | 99  | Why Learn Lua? It's Worth It!                                                                                          | Marc Garneau          | Convention Ctr. | 116         |
| Statistics                     | 112 | Statistical Illumination                                                                                               | Allan Rossman         | Convention Ctr. | 122 A       |
| Statistics                     | 121 | Data, Regression and Stats, Oh My! Clearing up Misconceptions While Integrating Statistics Throughout the Curriculum.  | Todd Sikora           | Marriott        | Franklin 4  |
| Technology                     | 88  | Making the Leap: Instituting TI-Nspire™ Technology across Math and Science in High School                              | Barbara Ward          | Convention Ctr. | 110 AB      |
| Technology                     | 97  | What's New? TI's Latest Addition to Integrating Technology.                                                            | Dona McSpadden        | Convention Ctr. | 115 B       |
| Technology                     | 98  | Exploring Uses for PHET™ Web-based Interactive Simulations: Some Sims Also Available for TI-Nspire™ CX Handheld        | Trish Loeblein        | Convention Ctr. | 115 C       |
| <b>Friday 2:45 – 4:15 p.m.</b> |     |                                                                                                                        |                       |                 |             |
| Algebra I                      | 150 | There's an App for That: Problem Solving in Algebra 1 Using the TI-Nspire™ CAS Handheld                                | David Reeves          | Convention Ctr. | 120 B       |
| Algebra I                      | 151 | Introduction to Data Collection for Algebra Classes Using Vernier® Temperature Probes and CBR 2™ Motion Detectors      | Katie Allard-Martinez | Convention Ctr. | 120 C       |
| Algebra I                      | 152 | Quick Poll with the TI-Nspire™ Navigator™ System is not Just for Formative Assessments (Reprise)                       | Doug Roberts          | Convention Ctr. | 121 A       |
| Algebra I                      | 167 | Pinky Pig and Farmer Faye Use the TI-84 Plus Silver Edition Graphing Calculator to Explore Quadratic Functions         | Becky Caison          | Marriott        | Franklin 8  |
| Algebra II                     | 157 | Beautiful Pictures of Lake Havasu Balloonfest Provide Modeling Opportunities: Be Nspired to Create Mathematical Models | Sharon Dailey         | Convention Ctr. | 123         |
| Algebra II                     | 158 | We Are Family: A TI-Nspire™ Handheld Exploration of the Function Families                                              | Elizabeth Pugliese    | Convention Ctr. | 124         |
| Algebra II                     | 159 | Algebra 2, Common Core State Standards and TI-Nspire™ Handheld                                                         | Ann Davidian          | Convention Ctr. | 125         |
| Algebra II                     | 168 | Facing Common Core with the TI-84 Plus Silver Edition Graphing Calculator                                              | Debbie Poss           | Marriott        | Franklin 9  |
| Assessment                     | 133 | Nspired Mastery                                                                                                        | Doug Smeltz           | Convention Ctr. | 112 A       |
| Authoring                      | 147 | Creating Powerful Learning Tools with the TI-Nspire™ Navigator™ NC System                                              | Steve Arnold          | Convention Ctr. | 119 A       |
| Biology                        | 135 | Teaching Human Physiology Using the TI-Nspire™ Handheld                                                                | Judy Day              | Convention Ctr. | 113 A       |
| Calculus                       | 143 | NASA and the TI-Nspire™ CAS Handheld: Activities for Your Calculus Classroom                                           | Ray Barton            | Convention Ctr. | 117         |
| Chemistry                      | 136 | Move Now From Cookbook To Inquiry                                                                                      | Greg Dodd             | Convention Ctr. | 113 B       |
| Elementary Math                | 169 | STEM + Elementary = Nspire                                                                                             | Marsha Burkholder     | Marriott        | Franklin 10 |



# Sessions by Time

MARCH 8  
Friday

| Subject                        | No. | Title                                                                                                                             | Presenter            | Location        | Room        |
|--------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------|-------------|
| <b>Friday 2:45 – 4:15 p.m.</b> |     |                                                                                                                                   |                      |                 |             |
| General Interest               | 156 | Transitioning from the TI-84 Plus Silver Edition Graphing Calculator to the TI-Nspire™ Handheld                                   | William Caroscio     | Convention Ctr. | 122 B       |
| General Interest               | 160 | The TI MathForward™ Program: What's This All About?                                                                               | Gina Allred          | Convention Ctr. | 126 A       |
| General Interest               | 163 | A Nutty Connection of Math and Science Using the TI-84 Plus C Silver Edition Graphing Calculator                                  | Mary Beth Murrell    | Marriott        | Franklin 2  |
| General Math                   | 134 | Using NASA Data to Explore S-IC.3-5 of the Common Core State Standards Using the TI-Nspire™ CAS Handheld                          | Curtis Brown         | Convention Ctr. | 112 B       |
| General Math                   | 144 | Technology and the Common Core State Standards: Panel Discussion                                                                  | Tom Dick             | Convention Ctr. | 118 A       |
| General Math                   | 145 | Getting to the Common Core with the TI-Nspire™ Handheld (Part 1)                                                                  | Veronica Carlson     | Convention Ctr. | 118 B       |
| General Math                   | 146 | TI-Nspire™ CX CAS Handheld: Cure for the Common Core                                                                              | Marian Prince        | Convention Ctr. | 118 C       |
| General Science                | 130 | Advanced Problem Solving in Science with the TI-Nspire™ CAS Handheld                                                              | C.W. Eaker           | Convention Ctr. | 109 B       |
| General Science                | 132 | Collecting and Analyzing Data Using the TI-Nspire™ Handheld                                                                       | Greg Williams        | Convention Ctr. | 111 B       |
| Geometry                       | 153 | Developing Geometry with the TI-Nspire™ Handheld                                                                                  | Kathy Hale           | Convention Ctr. | 121 B       |
| Geometry                       | 154 | Geometry, Transformations and TI-Nspire™ Technology: Making CCSS a Reality in Our Classrooms                                      | Wade Ellis           | Convention Ctr. | 121 C       |
| Middle Grades Math             | 170 | Connect Your Middle School Students to the Math Using TI-Nspire™ CAS Handhelds and the TI-Nspire™ Navigator™ System               | Karen Cockburn       | Marriott        | Franklin 11 |
| Middle Grades Math             | 171 | The TI-Nspire™ Handheld for Middle School Mathematics (Including 6th Grade)                                                       | Patsy Fagan          | Marriott        | Franklin 12 |
| Physics                        | 137 | Nspiring Fun Physics Labs                                                                                                         | Linda Antinone       | Convention Ctr. | 113 C       |
| Precalculus                    | 138 | Parabolas, Ellipses & Hyperbolas: From Paper Folding to TI-Nspire™ Technology (and even iPad®)                                    | Arthur Mabbott       | Convention Ctr. | 114         |
| Precalculus                    | 161 | F <sup>4</sup> : Four Favorite Fabulous Functions                                                                                 | Robin Levine-Wissing | Convention Ctr. | 126 B       |
| Precalculus                    | 162 | Using the TI-84 Plus C Silver Edition Graphing Calculator to Connect Functions and the Real World                                 | Gloria Barrett       | Marriott        | Franklin 1  |
| Programming                    | 142 | Introduction to Writing Code to Program the TI-Nspire™ Family of Handhelds                                                        | Becky Underwood      | Convention Ctr. | 116         |
| Statistics                     | 131 | Teaching the Statistics Strand in Common Core Using the TI-Nspire™ Handheld                                                       | Sharon Bruce         | Convention Ctr. | 110 AB      |
| Statistics                     | 155 | Designing Monte Carlo Simulations Using the TI-Nspire™ CAS Handheld                                                               | Natalie Jakucyn      | Convention Ctr. | 122 A       |
| Technology                     | 140 | Exponential Functions with TI-Nspire™ CAS Handheld in Your Common Core Classes                                                    | Michael Lutz         | Convention Ctr. | 115 B       |
| Technology                     | 141 | Aerodynamic Wind Tunnel in a School Hallway with the TI-Nspire™ CAS Handheld and TI-84 Plus Silver Edition Graphing Calculator    | Jeffery Thompson     | Convention Ctr. | 115 C       |
| Technology                     | 164 | What Else can my TI-84 Plus Silver Edition Graphing Calculator Do? Advanced Features for Teaching High School Math.               | Irina Lyublinskaya   | Marriott        | Franklin 4  |
| <b>Friday 4:30 – 5:30 p.m.</b> |     |                                                                                                                                   |                      |                 |             |
| Administrator                  | 190 | Field Trip Magic and Scavenger Hunts: Using the TI-Nspire™ Handheld and the TI-Nspire™ Navigator™ System to Keep Students Engaged | Carrie Wilson        | Convention Ctr. | 119 A       |
| Algebra I                      | 193 | Ready to Use Activities to Nspire Your Students                                                                                   | Della Highman        | Convention Ctr. | 120 B       |

# Sessions by Time

| Subject                        | No. | Title                                                                                                                                 | Presenter           | Location        | Room        |
|--------------------------------|-----|---------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------|-------------|
| <b>Friday 4:30 – 5:30 p.m.</b> |     |                                                                                                                                       |                     |                 |             |
| Algebra I                      | 194 | Holy Shift! Shifting your Algebra Instructional Style.                                                                                | Lindsay Miller      | Convention Ctr. | 120 C       |
| Algebra I                      | 195 | The TI-Nspire™ Navigator™ System in Your Classroom: How Can it Benefit You and Your Students?                                         | Scott Montgomery    | Convention Ctr. | 121 A       |
| Algebra I                      | 205 | TI-84 Plus C Silver Edition Graphing Calculator: Bright, Hi-Res <i>Color</i> and so much more                                         | Margo Mankus        | Marriott        | Franklin 1  |
| Algebra I                      | 206 | Fish Tales: Mathematical Modeling with the TI-84 Plus C Silver Edition Graphing Calculator                                            | Elizabeth Gasque    | Marriott        | Franklin 2  |
| Algebra I                      | 210 | Helping Struggling Algebra Students with the TI-84 Plus Silver Edition Graphing Calculator and the SMART Notebook                     | Sonja Barrera       | Marriott        | Franklin 8  |
| Algebra II                     | 202 | Colorful Conics on the TI-Nspire™ CAS Handheld                                                                                        | Raymond Rozen       | Convention Ctr. | 125         |
| Algebra II                     | 211 | Discovering the Unit Circle Using the TI-84 Plus Silver Edition Graphing Calculator                                                   | Ronda Davis         | Marriott        | Franklin 9  |
| Biology                        | 178 | Marine Science Investigations                                                                                                         | Scott Hurley        | Convention Ctr. | 113 A       |
| Calculus                       | 186 | Explore New Ways to Engage and Excite Students with Discussion and Exploration of Graphing Functions with the TI-Nspire™ CAS Handheld | Eduardo Briceño     | Convention Ctr. | 117         |
| General Interest               | 181 | Using the iPad®, Digital Content and Apps to Deepen Students' Understanding of and Appreciation for Mathematics                       | Ron Lancaster       | Convention Ctr. | 114         |
| General Interest               | 203 | Setup, Install and First Day Use of the TI-Nspire™ Navigator™ System                                                                  | Joseph Rodriguez    | Convention Ctr. | 126 A       |
| General Math                   | 177 | Investigating Functions with Transformations Using the TI-Nspire™ Handheld and the TI-84 Plus Silver Edition Graphing Calculator      | Charla Holzbog      | Convention Ctr. | 112 B       |
| General Math                   | 188 | Empowering Students in the Math Class Using the TI-Nspire™ Navigator™ System                                                          | Kathryn Behling     | Convention Ctr. | 118 B       |
| General Math                   | 191 | How to Use the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature in the Classroom                                           | Jess Kachur         | Convention Ctr. | 119 B       |
| General Science                | 175 | Parts Per Million: Exploring Concentration with Three Different Vernier® Sensors and the TI-Nspire™ Lab Cradle                        | Suzanne Tucker      | Convention Ctr. | 111 B       |
| Geometry                       | 196 | Proof by Counterexample for Geometry Students Using the TI-Nspire™ Handheld                                                           | Lisa Phillips       | Convention Ctr. | 121 B       |
| Geometry                       | 197 | Introduction to Drawing Shapes and Constructions                                                                                      | Melissa Churchill   | Convention Ctr. | 121 C       |
| Middle Grades Math             | 213 | Data Gathering Activities with the TI-Nspire™ Handheld                                                                                | Valerie Hudson      | Marriott        | Franklin 11 |
| Middle Grades Math             | 214 | Exploring Middle School Mathematics Using the TI-Nspire™ Handheld                                                                     | Blake Helm          | Marriott        | Franklin 12 |
| Middle Grades Science          | 180 | Quick Labs                                                                                                                            | Tom Cauffield       | Convention Ctr. | 113 C       |
| Precalculus                    | 204 | Creating Polar Flowers on the TI-Nspire™ Handheld                                                                                     | Joy Brokes          | Convention Ctr. | 126 B       |
| Precalculus                    | 207 | Parametric Representation on the TI-84 Plus Silver Edition Graphing Calculator                                                        | Richard Parr        | Marriott        | Franklin 4  |
| Statistics                     | 198 | Nspired Statistics: Using the TI-Nspire™ CAS Handheld for the First Time in AP® Statistics                                            | Steve Phelps        | Convention Ctr. | 122 A       |
| Technology                     | 174 | Go Paperless with TI-Nspire™ Navigator™ System and More!                                                                              | Sarah Bauguss       | Convention Ctr. | 110 AB      |
| Technology                     | 183 | The Three Rs: Rigor, Relevance and Rates: Changing Reactions in Science and Math Applications                                         | Darlene Villafranca | Convention Ctr. | 115 B       |

# Saturday Sessions by Time



| Subject                          | No. | Title                                                                                                                      | Presenter         | Location        | Room        |
|----------------------------------|-----|----------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------|-------------|
| <b>Saturday 8:00 – 9:30 a.m.</b> |     |                                                                                                                            |                   |                 |             |
| Administrator                    | 217 | The Business of You: Double Your Productivity, Reduce Your Stress and Balance Your Life                                    | Steve McClatchy   | Convention Ctr. | 110 AB      |
| Algebra I                        | 236 | Rethinking Fractions: Implications for Teaching and Learning Algebra                                                       | Gail Burrill      | Convention Ctr. | 120 B       |
| Algebra I                        | 237 | Nspiring Linearity in the Everyday Student                                                                                 | Patrick Sanchez   | Convention Ctr. | 120 C       |
| Algebra I                        | 238 | I've Turned It On, Now What? Getting Started with the TI-Nspire™ Handheld.                                                 | Sherry Everding   | Convention Ctr. | 121 A       |
| Algebra II                       | 235 | No Handhelds? No Problem! Use the TI-Nspire™ Teacher Software as a Powerful Demonstration Tool.                            | Julie Riggins     | Convention Ctr. | 120 A       |
| Algebra II                       | 243 | Providing Differentiated Support for All Students Using the TI-Nspire™ Navigator™ System and TI-Nspire™ CAS Handheld       | Allan Bellman     | Convention Ctr. | 123         |
| Algebra II                       | 244 | Flipped Out about CCSS in Algebra II with the TI-Nspire™ Navigator™ System                                                 | Robyn Poulsen     | Convention Ctr. | 124         |
| Algebra II                       | 245 | Give the Devil His Due Using the TI-Nspire™ Navigator™ System: Geometric Sequences Numerically, Graphically, Algebraically | Dennis Donovan    | Convention Ctr. | 125         |
| Assessment                       | 219 | The Power of the TI-Nspire™ Navigator™ System                                                                              | Jennifer Wilson   | Convention Ctr. | 112 A       |
| Assessment                       | 220 | Advanced Questioning with the TI-Nspire™ Navigator™ System                                                                 | Don Worcester     | Convention Ctr. | 112 B       |
| Authoring                        | 228 | TI-Nspire™ CAS Handheld Tips and Tricks: The Latest in the Cool and Powerful                                               | Marc Garneau      | Convention Ctr. | 116         |
| Authoring                        | 233 | The TI-Nspire™ Document Player: What is it?                                                                                | Tracy Watson      | Convention Ctr. | 119 A       |
| Biology                          | 221 | Biology Labs Using the TI-Nspire™ Handheld                                                                                 | Judy Day          | Convention Ctr. | 113 A       |
| Calculus                         | 229 | Interpreting Graphs in AP® Calculus                                                                                        | Tom Becvar        | Convention Ctr. | 117         |
| CAS                              | 251 | Meaningful Algebra with CAS                                                                                                | Steve Arnold      | Marriott        | Franklin 5  |
| CAS                              | 252 | Exploring the Calculator and Lists & Spreadsheets Apps on the TI-Nspire™ CAS Handheld                                      | Jay Schiffman     | Marriott        | Franklin 6  |
| CAS                              | 253 | Enhancing Precalculus and Calculus Learning with Interactive Dynamic Graphs Using TI-Nspire™ CAS Handheld                  | Frank Moya        | Marriott        | Franklin 7  |
| CAS                              | 255 | Using CAS with Struggling Algebra Students                                                                                 | Ken Indeck        | Marriott        | Franklin 9  |
| Chemistry                        | 222 | Blasting Off with NASA in Your Science Classroom                                                                           | Todd Morstein     | Convention Ctr. | 113 B       |
| Elementary Math                  | 256 | The TI-15 Explorer™ Calculator is the Tool for Common Core State Standards                                                 | Marsha Burkholder | Marriott        | Franklin 10 |
| General Interest                 | 224 | The TI-Nspire™ App for iPad®: How to Use and Creatively Integrate with Other Cool iPad Apps                                | Tom Reardon       | Convention Ctr. | 114         |
| General Interest                 | 242 | Tools, Tips, Tricks, and Techniques for the TI-Nspire™ CAS Handheld                                                        | Jerry Scherer     | Convention Ctr. | 122 B       |
| General Interest                 | 246 | Get to the Common Core with the TI-Nspire™ Handheld (Part 2)                                                               | Kimberley Thomas  | Convention Ctr. | 126 A       |

# Sessions by Time

MARCH 9  
**Saturday**

| Subject                           | No. | Title                                                                                                                     | Presenter             | Location        | Room        |
|-----------------------------------|-----|---------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------|-------------|
| <b>Saturday 8:00 – 9:30 a.m.</b>  |     |                                                                                                                           |                       |                 |             |
| General Math                      | 232 | Best Teaching Practices Using the Networked TI-Nspire™ Navigator™ NC for Computers or TI-Nspire™ Navigator™ for Handhelds | Ellen Browne          | Convention Ctr. | 118 C       |
| General Science                   | 216 | STEM: Now or Never!                                                                                                       | Greg Dodd             | Convention Ctr. | 109 B       |
| General Science                   | 218 | Real Data. Real Time. Data Collection in the Science Classroom with the TI-Nspire™ CAS Handheld.                          | Ed Roberts            | Convention Ctr. | 111 B       |
| Geometry                          | 239 | Some New Angles on Old Geometry                                                                                           | William Caroscio      | Convention Ctr. | 121 B       |
| Geometry                          | 240 | Common Core-aligned TI-Nspired™ Geometry Activities: Hands-On Explorations with Student Feedback and Assessment Results   | Michelle Goetz        | Convention Ctr. | 121 C       |
| Geometry                          | 250 | A Geometry Lab in Your Hand: Using the Cabri™ Jr. App on the TI-83 Plus and TI-84 Plus Families of Graphing Calculators   | Karen Campe           | Marriott        | Franklin 4  |
| Middle Grades Math                | 248 | Middle School Activities Using the TI-84 Plus C Silver Edition Graphing Calculator                                        | Fred Decovsky         | Marriott        | Franklin 1  |
| Middle Grades Math                | 257 | Common Core Got You Down?                                                                                                 | Miguel Garcia         | Marriott        | Franklin 11 |
| Middle Grades Math                | 258 | M&M's® and More: Data Analysis for Middle School Grades Using the TI-Nspire™ Handheld                                     | Beth Smith            | Marriott        | Franklin 12 |
| Middle Grades Math                | 259 | Dealing with Data in Middle Grades Using Multiple Representations and the TI-84 Plus Graphing Calculator Family           | Jane Barnard          | Marriott        | Franklin 13 |
| Middle Grades Science             | 223 | Nspired Sciences for the Middle Grades                                                                                    | David Young           | Convention Ctr. | 113 C       |
| Precalculus                       | 247 | Energizing and Connecting for Student Understanding Using the TI-Nspire™ Navigator™ System                                | Deborah Kula          | Convention Ctr. | 126 B       |
| Statistics                        | 241 | Linear Regression in Context Using the TI-Nspire™ CAS Handhelds and TI-Nspire™ Navigator™ System                          | Armando Lopez-Zamudio | Convention Ctr. | 122 A       |
| Statistics                        | 249 | Type II Error And Power of A Test: Statistics with the TI-84 Plus C Silver Edition Graphing Calculator                    | Mike Koehler          | Marriott        | Franklin 2  |
| Technology                        | 226 | Real-World Applications Using Vernier® DataQuest and the TI-Nspire™ Navigator™ System Live Presenter for Data Collection  | JoAnn Miltenberg      | Convention Ctr. | 115 B       |
| Technology                        | 227 | TI-Nspire™ Technology and the Flipped Classroom: The Possibilities for Blended Learning are Endless                       | Richard Snow          | Convention Ctr. | 115 C       |
| Technology                        | 231 | The TI-Nspire™ and Standards for Mathematical Practice: A Beautiful Match                                                 | Katie England         | Convention Ctr. | 118 B       |
| Technology                        | 234 | TI PublishView™ Documents: Creating and Using                                                                             | Brenda Peterman       | Convention Ctr. | 119 B       |
| <b>Saturday 9:45 – 10:45 a.m.</b> |     |                                                                                                                           |                       |                 |             |
| Administrator                     | 262 | (Infusing TI-Nspire™ Family) + (STEM Education) = Bridging the Gap for Educational Leaders                                | Edward Chaves         | Convention Ctr. | 110 AB      |
| Algebra I                         | 281 | Using the TI-Nspire™ Handheld to Teach the CCSS                                                                           | Terri Faitel          | Convention Ctr. | 120 B       |
| Algebra I                         | 282 | Using the TI-Nspire™ Navigator™ System to Improve Student Achievement in a Community College Classroom                    | Dave Usinski          | Convention Ctr. | 120 C       |
| Algebra I                         | 283 | Using the TI-Nspire™ Handheld to Investigate Concepts Found in Algebra I                                                  | Edward DePeau         | Convention Ctr. | 121 A       |

| Subject                           | No. | Title                                                                                                                  | Presenter              | Location        | Room       |
|-----------------------------------|-----|------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------|------------|
| <b>Saturday 9:45 – 10:45 a.m.</b> |     |                                                                                                                        |                        |                 |            |
| Algebra II                        | 288 | Using the TI-Nspire™ Navigator™ System: Not the App, but the System                                                    | Andrew Amstutz         | Convention Ctr. | 123        |
| Algebra II                        | 289 | TI-Nspire™ Navigator™ and the Three Rs: Rigor, Relevance and Relationships                                             | Tracy Slate            | Convention Ctr. | 124        |
| Algebra II                        | 293 | The TI-84 Plus C Silver Edition Graphing Calculator in Secondary Math in Preparation for AP® Calculus                  | Fan Disher             | Marriott        | Franklin 1 |
| Algebra II                        | 294 | Modeling Data with the TI-84 Plus C Silver Edition Graphing Calculator                                                 | Judy Hicks             | Marriott        | Franklin 2 |
| Algebra II                        | 305 | Introducing Tricky Trig Functions Using the TI-Navigator™ Classroom Learning System                                    | Cindy Edwards          | Marriott        | Salon J    |
| Authoring                         | 271 | <i>Match the Graph</i> (Now in Living Color)                                                                           | Heidi Rudolph          | Convention Ctr. | 115 B      |
| Biology                           | 266 | Inquiry Science in a Biology Classroom with the TI-Nspire™ Handheld                                                    | Chad Backsen           | Convention Ctr. | 113 A      |
| Biology                           | 280 | What do Yeast Like to Eat? An Argument-driven Inquiry Utilizing Probes and Laptops.                                    | Melanie Hester         | Convention Ctr. | 120 A      |
| Calculus                          | 265 | Calculus Explorations Using the TI-Nspire™ CAS Handheld                                                                | Ken Collins            | Convention Ctr. | 112 B      |
| Calculus                          | 274 | Parametric 3D Plotting with the TI-Nspire™ CAS Handheld                                                                | Michel Beaudin         | Convention Ctr. | 117        |
| CAS                               | 296 | Basic Algebra with TI-Nspire™ CAS Handheld                                                                             | Lynda Ferneyhough      | Marriott        | Franklin 5 |
| CAS                               | 297 | Once Upon a Circle: The TI-Nspire™ CAS Handheld                                                                        | John Hanna             | Marriott        | Franklin 6 |
| CAS                               | 298 | What About Factoring? Is It Relevant with CAS-enabled Tools?                                                           | Michael Buescher       | Marriott        | Franklin 7 |
| CAS                               | 299 | The Use of CAS Calculators on ACT® Mathematics Exams by Students in CAS-using Schools                                  | M. Kathleen Heid       | Marriott        | Franklin 8 |
| CAS                               | 300 | Teaching and Learning Secondary Mathematics with CAS: Reflecting on Two Decades of Research and Development Activities | Michèle Artigue        | Marriott        | Franklin 9 |
| Chemistry                         | 267 | Chemical Equilibrium: A Matter of Balance                                                                              | Ray Lesniewski         | Convention Ctr. | 113 B      |
| General Interest                  | 287 | The TI-Nspire™ CAS Handheld for Beginners: Turning the Mountain Back into a Molehill                                   | Tracy Wingert          | Convention Ctr. | 122 B      |
| General Interest                  | 290 | Taking Students to the 21st Century                                                                                    | Ken Phillips           | Convention Ctr. | 125        |
| General Interest                  | 291 | Hey, How Do I Do That Again?                                                                                           | Josh Mize              | Convention Ctr. | 126 A      |
| General Math                      | 275 | Fun with TI-Nspire™ CAS Handheld                                                                                       | Jennifer Chirles       | Convention Ctr. | 118 A      |
| General Math                      | 276 | Changes in the Plan Through the TI-Nspire™ CAS Handheld                                                                | Sofia Murillo Martinez | Convention Ctr. | 118 B      |
| General Math                      | 277 | An Introductory Tour of the TI-Nspire™ Handheld                                                                        | Ron Kennedy            | Convention Ctr. | 118 C      |
| General Math                      | 278 | Using the Assessment Portfolio Strategically with the TI-Nspire™ Navigator™ System to Lessen Teacher Grading Time      | Jeremy Zelkowski       | Convention Ctr. | 119 A      |



# Sessions by Time

MARCH 9  
**Saturday**

| Subject                                 | No. | Title                                                                                                                                                                        | Presenter         | Location        | Room        |
|-----------------------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------|-------------|
| <b>Saturday 9:45 – 10:45 a.m.</b>       |     |                                                                                                                                                                              |                   |                 |             |
| General Science                         | 261 | Cultural Change: Implementing Scientific Literacy Districtwide                                                                                                               | Eleanor Smalley   | Convention Ctr. | 109 B       |
| Geometry                                | 284 | Have You Got the Right Image? Transformations in the Coordinate Plane with the TI-Nspire™ Handheld.                                                                          | Margaret Bambrick | Convention Ctr. | 121 B       |
| Geometry                                | 285 | Discovering the Definition of the Parabola Using TI-Nspire™ Handheld as Seen Through a Common Core Classroom                                                                 | Stan Pappo        | Convention Ctr. | 121 C       |
| Geometry                                | 295 | Dynamic Geometry on the TI-84 Plus Silver Edition Graphing Calculator: Cabri™ Jr. Basics                                                                                     | Elizabeth Haskins | Marriott        | Franklin 4  |
| Middle Grades Math                      | 302 | Incorporating Texas Instruments Graphing Calculators in Middle School Math                                                                                                   | Mary Burr         | Marriott        | Franklin 11 |
| Middle Grades Math                      | 304 | TI-73 Explorer™, TI-83 Plus and TI-84 Plus Silver Edition Graphing Calculators: Fantastic Instructional Tools for Grades 6 & 7 Common Core State Standards                   | Judy Wheeler      | Marriott        | Franklin 13 |
| Physics                                 | 263 | The Mathematics of Pulsars and Exoplanets Using the TI-Nspire™ CAS Handheld                                                                                                  | Stephen Broderick | Convention Ctr. | 111 B       |
| Physics                                 | 268 | Discovering Understanding Through Data Collection                                                                                                                            | Paul Williams     | Convention Ctr. | 113 C       |
| Precalculus                             | 279 | Use TI-Nspire™ Technology to Create a Video                                                                                                                                  | Marsha Guntharp   | Convention Ctr. | 119 B       |
| Precalculus                             | 292 | What's My Vector?                                                                                                                                                            | Gina Foletta      | Convention Ctr. | 126 B       |
| Programming                             | 273 | Writing CAS Programs for the TI-Nspire™ CAS Handheld                                                                                                                         | George Marino     | Convention Ctr. | 116         |
| Statistics                              | 264 | Bringing Data and Statistics to Life with the TI-Nspire™ Handheld                                                                                                            | Abel Maestas      | Convention Ctr. | 112 A       |
| Statistics                              | 269 | Nspired Statistics on iPad®                                                                                                                                                  | Ray Barton        | Convention Ctr. | 114         |
| Statistics                              | 286 | Using the TI-Nspire™ Handheld in a Stats Classroom                                                                                                                           | Matt Almon        | Convention Ctr. | 122 A       |
| Technology                              | 272 | Engaging Middle School Math and Science Students: Interactive Activities Using TI-84 Plus Silver Edition Graphing Calculators and TI-Nspire™ Handhelds with Vernier® Sensors | Herb Green        | Convention Ctr. | 115 C       |
| <b>Saturday 11:00 a.m. – 12:00 p.m.</b> |     |                                                                                                                                                                              |                   |                 |             |
| Administrator                           | 307 | Integrating Math and Science Using TI-Nspire™ Technology                                                                                                                     | Leann Iacuone     | Convention Ctr. | 110 AB      |
| Algebra I                               | 323 | Your TI-84 Plus C Silver Edition Graphing Calculator Classroom: Preparing and Presenting Using TI Connect™ Software, TI-SmartView™ Emulator Software and More                | Margo Mankus      | Convention Ctr. | 119 A       |
| Algebra I                               | 327 | Beyond Rote: Using the TI-Nspire™ Navigator™ System for Rich, Higher-level Assessment in Algebra I                                                                           | Lisa Simonick     | Convention Ctr. | 120 C       |
| Algebra I                               | 328 | CCSS and the TI-Nspire™ Handheld                                                                                                                                             | Michael Houston   | Convention Ctr. | 121 A       |
| Algebra II                              | 333 | Analyzing Classroom Temperature with TI-Nspire™ Technology                                                                                                                   | Jeff Corn         | Convention Ctr. | 123         |
| Algebra II                              | 334 | Making Math Out of March Madness                                                                                                                                             | Jennifer Axley    | Convention Ctr. | 124         |

## Sessions by Time

| Subject                                 | No. | Title                                                                                                                                                | Presenter        | Location        | Room        |
|-----------------------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|-------------|
| <b>Saturday 11:00 a.m. – 12:00 p.m.</b> |     |                                                                                                                                                      |                  |                 |             |
| Algebra II                              | 335 | Animated Activities with TI-Nspire™ Technology that Capture the Spirit of the Common Core State Standards for Algebra II                             | Brendan Kelly    | Convention Ctr. | 125         |
| Algebra II                              | 338 | Fun Stat Activities to Use with your TI-84 Plus C Silver Edition Graphing Calculator                                                                 | Sharon Cichocki  | Marriott        | Franklin 1  |
| Algebra II                              | 350 | Fun with Functions and the TI-84 Plus Silver Edition Graphing Calculator                                                                             | Reva Narasimhan  | Marriott        | Salon J     |
| Assessment                              | 309 | The TI-Nspire™ Navigator™ System Alongside <i>You Didn't Teach Me This!</i>                                                                          | Kara Leaman      | Convention Ctr. | 112 A       |
| Biology                                 | 311 | Launching the TI-Nspire™ CX Navigator™ System and TI-Nspire™ CX Handheld in Biology Classrooms at Woodrow Wilson High School in Portsmouth, Virginia | Cheryl Coronado  | Convention Ctr. | 113 A       |
| Calculus                                | 310 | Give Your Mathematics a Lift!                                                                                                                        | Trevor Redmond   | Convention Ctr. | 112 B       |
| Calculus                                | 319 | TI-Nspire™ CAS Handheld Activities for Calculus and Vectors                                                                                          | Paul Alves       | Convention Ctr. | 117         |
| CAS                                     | 341 | Modeling Algebraic Structures with CAS                                                                                                               | Al Cuoco         | Marriott        | Franklin 5  |
| CAS                                     | 342 | Kilts and CAS in both Canada and Scotland                                                                                                            | Nevil Hopley     | Marriott        | Franklin 6  |
| CAS                                     | 343 | Exploring Dynamic CAS for Sense-Making and Reasoning                                                                                                 | Lewis Lum        | Marriott        | Franklin 7  |
| CAS                                     | 344 | Is There a Better Way to Introduce Algebra for CAS?                                                                                                  | Ray Williams     | Marriott        | Franklin 8  |
| CAS                                     | 345 | Teaching in an Electronic Age                                                                                                                        | Stephen Vallette | Marriott        | Franklin 9  |
| Chemistry                               | 312 | AP* Chemistry: Integrating TI-84 Plus Silver Edition Graphing Calculator and Probeware into AP* Inquiry Labs                                         | Jim Ealy         | Convention Ctr. | 113 B       |
| General Interest                        | 332 | SAT* Math Prep, the TI-Nspire™ CX CAS Handheld and TI-Nspire™ Navigator™ System: Inching Closer to 800                                               | Anthony Record   | Convention Ctr. | 122 B       |
| General Interest                        | 336 | Embracing STEM Project-Based Learning and TI-Nspire™ Technology                                                                                      | Gustavo Perez    | Convention Ctr. | 126 A       |
| General Math                            | 314 | Exploring Rates from Algebra to Calculus                                                                                                             | Vicki Carter     | Convention Ctr. | 114         |
| General Math                            | 321 | Picture Time with the TI-Nspire™ Handheld                                                                                                            | Andi Parr        | Convention Ctr. | 118 B       |
| General Math                            | 322 | Rich Tasks for the TI-Nspire™ Handheld                                                                                                               | Max Ray          | Convention Ctr. | 118 C       |
| General Math                            | 324 | Quick Polls, Documents and Pages, Oh my! Get Nspired to Learn About Daily TI-Nspire™ Navigator™ System Use                                           | Kari Craddock    | Convention Ctr. | 119 B       |
| General Science                         | 306 | Make Your Favorite Labs Nspired                                                                                                                      | Jacklyn Bonneau  | Convention Ctr. | 109 B       |
| Geometry                                | 325 | Exploring Geometry Transformations and Sliders                                                                                                       | Martin Sanchez   | Convention Ctr. | 120 A       |
| Geometry                                | 330 | Visual 3D Geometry with the TI-Nspire™ CAS Handheld                                                                                                  | Bjørn Felsager   | Convention Ctr. | 121 C       |
| Geometry                                | 349 | Exploring Points of Concurrency in the TI-84 Plus Silver Edition Graphing Calculator Using Simple Programs                                           | Edsel Baker      | Marriott        | Franklin 13 |

# Sessions by Time

MARCH 9  
**Saturday**

| Subject                                 | No. | Title                                                                                                                      | Presenter                | Location        | Room        |
|-----------------------------------------|-----|----------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------|-------------|
| <b>Saturday 11:00 a.m. – 12:00 p.m.</b> |     |                                                                                                                            |                          |                 |             |
| Middle Grades Math                      | 347 | Mr. Magoo's Murder: The TI-84 Plus Silver Edition Graphing Calculator                                                      | Leann Rains              | Marriott        | Franklin 11 |
| Middle Grades Math                      | 348 | Picture This: Calculating Perimeter and Area Using Images of Real-life Objects and TI-Nspire™ Technology                   | Mayra Chao               | Marriott        | Franklin 12 |
| Middle Grades Science                   | 313 | Discovering Variation Within and Between Species Using the TI-84 Plus Silver Edition Graphing Calculator                   | Peggy Welch              | Convention Ctr. | 113 C       |
| Precalculus                             | 337 | Approximation of Functions with the TI-Nspire™ CAS Handheld                                                                | Jose Luis Espinosa Reina | Convention Ctr. | 126 B       |
| Precalculus                             | 340 | The TI-84 Plus Silver Edition Graphing Calculator and TI-Navigator™ Classroom Learning System in the Precalculus Classroom | Jan Mitchener            | Marriott        | Franklin 4  |
| Programming                             | 318 | Teaching Beginner Programming Concepts with the TI-83 Plus and TI-84 Plus Silver Edition Graphing Calculators              | Christopher Mitchell     | Convention Ctr. | 116         |
| Statistics                              | 331 | Graphical Representation for the Statistical Interpretation of Data                                                        | Rafael Canales-Pastrana  | Convention Ctr. | 122 A       |
| Technology                              | 316 | Creating a Collaborative Classroom Environment: TI-Nspire™ Activities on the Interactive Whiteboard                        | Deana Deichert           | Convention Ctr. | 115 B       |
| Technology                              | 317 | Advanced Quantitative Reasoning: A Post-Algebra II Course Using the TI-Nspire™ CAS Handheld                                | Greg Foley               | Convention Ctr. | 115 C       |
| Technology                              | 329 | Hidden Gem: Question Application in the TI-Nspire™ Teacher Software                                                        | Rodney Anderson          | Convention Ctr. | 121 B       |
| <b>Saturday 1:00 – 2:00 p.m.</b>        |     |                                                                                                                            |                          |                 |             |
| Algebra I                               | 371 | Enhancing Student Understanding Through TI-73 Explorer™ Graphing Calculator Applications                                   | Causandra Bradley        | Convention Ctr. | 120 B       |
| Algebra I                               | 372 | Using TI-Nspire™ Technology to Easily Create Parallel Tasks for Your Algebra Students                                      | Kimberly Tarnowiecky     | Convention Ctr. | 120 C       |
| Algebra I                               | 373 | Fish Tales: Mathematical Modeling with the TI-Nspire™ Handheld                                                             | Elizabeth Gasque         | Convention Ctr. | 121 A       |
| Algebra I                               | 395 | Pattern Building in Algebra                                                                                                | Ed Laughbaum             | Marriott        | Salon J     |
| Algebra II                              | 378 | Rats, it's Time to Teach Rationals: Meet Mathematical Practice #7                                                          | Andrew Benzing           | Convention Ctr. | 123         |
| Algebra II                              | 379 | Stations in Secondary Math? How TI-Nspire™ Technology can Differentiate Your Classroom                                     | Toni Norrell             | Convention Ctr. | 124         |
| Assessment                              | 354 | Assessments Using the TI-Nspire™ Navigator™ System: Go Paperless                                                           | Mary A. Brese            | Convention Ctr. | 112 A       |
| Calculus                                | 364 | Using the TI-Nspire™ CAS Handheld in AP* Calculus                                                                          | Lisa Conzemius           | Convention Ctr. | 117         |
| CAS                                     | 386 | Curve Sketching in Calculus with CAS                                                                                       | Fred Ferneyhough         | Marriott        | Franklin 5  |
| CAS                                     | 387 | CAS in the Algebra I Classroom                                                                                             | Ray Klein                | Marriott        | Franklin 6  |
| CAS                                     | 388 | Assessment with CAS: Writing Tests for CAS-capable Students                                                                | Michael Buescher         | Marriott        | Franklin 7  |
| CAS                                     | 389 | Problems for CAS Solutions                                                                                                 | Lin McMullin             | Marriott        | Franklin 8  |
| CAS                                     | 390 | What Purposes Does Technology Really Play on Standardized Tests and in Classrooms?                                         | Rose Zbiek               | Marriott        | Franklin 9  |

## Sessions by Time

| Subject                          | No. | Title                                                                                                                                            | Presenter         | Location        | Room        |
|----------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------|-------------|
| <b>Saturday 1:00 – 2:00 p.m.</b> |     |                                                                                                                                                  |                   |                 |             |
| Chemistry                        | 356 | Get Nspired with Inquiry                                                                                                                         | Dina Dormer       | Convention Ctr. | 113 A       |
| Chemistry                        | 357 | Chemistry Concepts Come Alive Through Demonstrations in the Classroom Using the TI-84 Plus Silver Edition Graphing Calculator and Sensor         | Julie B. Ealy     | Convention Ctr. | 113 B       |
| General Interest                 | 381 | Tips and Tricks with the TI-Nspire™ Navigator™ System and Software                                                                               | Joseph Rodriguez  | Convention Ctr. | 126 A       |
| General Math                     | 365 | Flipping out over Flipbooks: Make an Nspiring Math Movie with Music and Fun                                                                      | Elizabeth Haskins | Convention Ctr. | 118 A       |
| General Math                     | 366 | Your <i>Golden</i> Measurements                                                                                                                  | Deobra Solomon    | Convention Ctr. | 118 B       |
| General Math                     | 367 | Reaching All Learners with TI-Nspire™ Technology: How to Tackle the Common Core State Standards for Mathematical Practice in a Diverse Classroom | Pamela Baker      | Convention Ctr. | 118 C       |
| General Math                     | 384 | Bright Colors and More: See What the TI-84 Plus C Silver Edition Graphing Calculator Can Do                                                      | John LaMaster     | Marriott        | Franklin 2  |
| General Science                  | 351 | Integrating TI-Nspire™ Technology Into the Science Classroom                                                                                     | Louise Chapman    | Convention Ctr. | 109 B       |
| General Science                  | 353 | Science and Math Integrated with Just a Little Common Sensors                                                                                    | Jeff Lukens       | Convention Ctr. | 111 B       |
| General Science                  | 359 | Hands-on, Minds-on Science on the iPad®                                                                                                          | Ray Lesniewski    | Convention Ctr. | 114         |
| Geometry                         | 374 | TI-Nspire™ Technology for Beginner Geometry Teachers                                                                                             | Rachael Gorsuch   | Convention Ctr. | 121 B       |
| Geometry                         | 375 | Old School Geometry on a New School Device                                                                                                       | Johnny Ashurst    | Convention Ctr. | 121 C       |
| Middle Grades Math               | 370 | The TI-Nspire™ Navigator™ NC System and Google Docs: a Perfect Pair                                                                              | Melfried Olson    | Convention Ctr. | 120 A       |
| Middle Grades Math               | 383 | Middle School Activities Using the TI-84 Plus C Silver Edition Graphing Calculator                                                               | Fred Decovsky     | Marriott        | Franklin 1  |
| Middle Grades Math               | 392 | Apps on the TI-83 Plus and TI-84 Plus Silver Edition Graphing Calculators: Who Knew?                                                             | Donna Harris      | Marriott        | Franklin 11 |
| Middle Grades Math               | 393 | Never Used a TI-Nspire™ Handheld or a TI-Nspire™ Navigator™ System? Come and Learn What All the Excitement is About.                             | Scott Powell      | Marriott        | Franklin 12 |
| Middle Grades Math               | 394 | Five Things You Might Not Know You Can Do with a TI-73 Explorer™ Graphing Calculator                                                             | Ray O'Brien       | Marriott        | Franklin 13 |
| Middle Grades Science            | 369 | Earth Science Nspired                                                                                                                            | Tami Plein        | Convention Ctr. | 119 B       |
| Physics                          | 358 | Going <i>Trig-less</i> : Using the TI-Nspire™ Handheld for Graphical Vector Resolution                                                           | Shawn Schlueter   | Convention Ctr. | 113 C       |
| Precalculus                      | 382 | Making a Rainbow of Colors: Probing with pH, Temperature and TI-Nspire™ Technology                                                               | Kimberly Reese    | Convention Ctr. | 126 B       |
| Precalculus                      | 385 | Series Formulas Discovered by TI-84 Plus Silver Edition Graphing Calculator and Verified by Mathematical Induction                               | Paul Foerster     | Marriott        | Franklin 4  |

# Sessions by Time

MARCH 9  
**Saturday**

| Subject | No. | Title | Presenter | Location | Room |
|---------|-----|-------|-----------|----------|------|
|---------|-----|-------|-----------|----------|------|

## Saturday 1:00 – 2:00 p.m.

|            |     |                                                                                                                 |                |                 |       |
|------------|-----|-----------------------------------------------------------------------------------------------------------------|----------------|-----------------|-------|
| Statistics | 355 | <i>Just the Stats, Ma'am</i> , Using TI-Nspire™ Technology                                                      | Kelly Soule    | Convention Ctr. | 112 B |
| Statistics | 376 | Helping Students Reach Statistics: Using TI-Nspire™ Technology to Incorporate Statistics throughout Mathematics | Timothy Barnes | Convention Ctr. | 122 A |
| Technology | 361 | Trigonometry Word Problem Using the TI-Nspire™ Navigator™ System                                                | Scott Washburn | Convention Ctr. | 115 B |
| Technology | 362 | Infusing Reasoning and Sense-Making Using TI-Nspire™ Technology                                                 | Dan Ilaria     | Convention Ctr. | 115 C |

## Saturday 2:15 – 3:45 p.m.

|               |     |                                                                                                                         |                   |                 |            |
|---------------|-----|-------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------|------------|
| Administrator | 397 | Let's Explore the TI-Nspire™ Handheld                                                                                   | Murney Bell       | Convention Ctr. | 110 AB     |
| Algebra I     | 416 | TI-Nspire™ Applications for the Common Core                                                                             | Howard Stern      | Convention Ctr. | 120 B      |
| Algebra I     | 417 | Activate with Active Math Boxes                                                                                         | Philip Magner     | Convention Ctr. | 120 C      |
| Algebra I     | 418 | Angry Birds® and Other Games to Promote Learning in the Algebra Classroom                                               | Lauren Jensen     | Convention Ctr. | 121 A      |
| Algebra I     | 428 | TI-84 Plus C Silver Edition Graphing Calculator: Bright, Hi-Res <i>Color</i> and so much more                           | Margo Mankus      | Marriott        | Franklin 1 |
| Algebra I     | 440 | Navigating through Algebra I and II Using Texas Instruments Education Technology                                        | Bill Stiggers     | Marriott        | Salon J    |
| Algebra II    | 423 | RATS! Why are RAtional Function so Hard? TI-Nspire™ Technology to the Rescue.                                           | Lynn Adsit        | Convention Ctr. | 123        |
| Algebra II    | 424 | Common Core State Standards for Mathematics, TI-Nspire™ Technology and Data Collection: The Correlation                 | Delbra Robinson   | Convention Ctr. | 124        |
| Algebra II    | 425 | How do you Meet the Standards and Still Excite Your Math Students? Use a Lab-based Approach with TI-Nspire™ Technology. | Ronald Armontrout | Convention Ctr. | 125        |
| Assessment    | 399 | The TI-Nspire™ Navigator™ System for Power Users                                                                        | Jeff McCalla      | Convention Ctr. | 112 A      |
| Authoring     | 408 | Striking Statistical Simulations Using Lua Scripting                                                                    | Andy Kemp         | Convention Ctr. | 116        |
| Biology       | 401 | Enhancing a Biology Classroom Using the TI-Nspire™ Navigator™ System                                                    | Christy Barton    | Convention Ctr. | 113 A      |
| Calculus      | 409 | Tech Tips for AP* Calculus: TI-84 Plus Silver Edition Graphing Calculator and TI-Nspire™ CAS Handheld                   | Sean Bird         | Convention Ctr. | 117        |
| CAS           | 431 | Making the Most of the TI-Nspire™ CAS Handheld Notes Application                                                        | Peter Flynn       | Marriott        | Franklin 5 |
| CAS           | 432 | Number Theoretic Programs for the TI-89 Titanium Graphing Calculator                                                    | Jay Schiffman     | Marriott        | Franklin 6 |
| CAS           | 434 | Nspired Probability, Polynomials and CAS                                                                                | Steve Phelps      | Marriott        | Franklin 8 |
| CAS           | 435 | Using CAS to Promote Discovery in Algebra II and Precalculus                                                            | Jon Lepeska       | Marriott        | Franklin 9 |
| Chemistry     | 402 | Chemistry Activities with TI-Nspire™ Technology Using the Vernier® DataQuest™ App                                       | C.W. Eaker        | Convention Ctr. | 113 B      |

## Sessions by Time

| Subject                          | No. | Title                                                                                                                               | Presenter                    | Location        | Room        |
|----------------------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------|-------------|
| <b>Saturday 2:15 – 3:45 p.m.</b> |     |                                                                                                                                     |                              |                 |             |
| Elementary Math                  | 436 | Using Multiple Representations with the TI-10 and TI-15 Explorer™ Calculators to Build New Understandings in Elementary Mathematics | Tammy L Jones                | Marriott        | Franklin 10 |
| General Interest                 | 414 | The Amazing Classroom Freedom Race                                                                                                  | Jane Damaske                 | Convention Ctr. | 119 B       |
| General Interest                 | 422 | Ask, Don't Tell: Listen to Learn and Assess                                                                                         | Jill Gough                   | Convention Ctr. | 122 B       |
| General Interest                 | 426 | The Secret Powers of the TI-Nspire™ CAS Handheld Menu System Revealed                                                               | Roger Fuller                 | Convention Ctr. | 126 A       |
| General Math                     | 410 | You Want Me To Do What?                                                                                                             | Kim Zeydel                   | Convention Ctr. | 118 A       |
| General Math                     | 411 | F <sup>25</sup> : 25 Lesser Known Features of the TI-84 Plus Silver Edition Graphing Calculator                                     | Marilyn Parker               | Convention Ctr. | 118 B       |
| General Math                     | 412 | So you Bought an TI-Nspire™ Handheld. Now What?                                                                                     | Becky Byer                   | Convention Ctr. | 118 C       |
| General Math                     | 429 | Bright Colors and More: See What the TI-84 Plus C Silver Edition Graphing Calculator Can Do                                         | John LaMaster                | Marriott        | Franklin 2  |
| General Science                  | 396 | Performing and Assessing Science Lab Activities Using the TI-Nspire™ Navigator™ System                                              | Rob Reniewicki               | Convention Ctr. | 109 B       |
| General Science                  | 398 | Using the TI-Nspire™ CAS Handheld to Bring the Next Generation Science Framework to Life in the Classroom                           | Patti Smith                  | Convention Ctr. | 111 B       |
| Geometry                         | 420 | Capture the Geometry with the TI-Nspire™ Family of Handhelds                                                                        | Karen Campe                  | Convention Ctr. | 121 C       |
| Geometry                         | 430 | Lunes of Hippocrates and the Wheel of Theodorus                                                                                     | Susan Howe                   | Marriott        | Franklin 4  |
| Middle Grades Math               | 437 | Curiosity Killed the Boring Classroom: Motivating Middle School Math Students                                                       | Maria Benzon                 | Marriott        | Franklin 11 |
| Middle Grades Math               | 438 | Inequalities from the University to the School Using the TI-Nspire™ CAS Handheld                                                    | Manuel Antonio Montero Gaona | Marriott        | Franklin 12 |
| Middle Grades Math               | 439 | Using the TI-73 Explorer™ Graphing Calculator in Middle Grades                                                                      | Valerie Hudson               | Marriott        | Franklin 13 |
| Physics                          | 403 | Physics, Math and Texas Instruments Education Technology: Perfect Recipe for an Integrated Course                                   | Angeles Dominguez            | Convention Ctr. | 113 C       |
| Precalculus                      | 415 | Our Favorite TI-Nspire™ Activities for Precalculus Bring the Common Core State Standards to Life                                    | Aurelia Weil                 | Convention Ctr. | 120 A       |
| Precalculus                      | 427 | Nspired to Do Math in the Real World                                                                                                | Linda Antinone               | Convention Ctr. | 126 B       |
| Statistics                       | 421 | TI-Nspire™ Navigator™ System Data Collection 101: Use Quick Polls to Quickly Get Class Data for Analysis                            | Lee Kucera                   | Convention Ctr. | 122 A       |
| Technology                       | 400 | Simulating and Building a STEM Instrument for the Science Classroom                                                                 | Fred Fotsch                  | Convention Ctr. | 112 B       |
| Technology                       | 404 | TI-Nspire™ App for iPad®: You Can Finally Bring Your iPad® into the Math Classroom to Learn Math                                    | Allan Bellman                | Convention Ctr. | 114         |
| Technology                       | 406 | Get Started with Common Core Using the TI-Nspire™ Handheld                                                                          | Michelle Bonds               | Convention Ctr. | 115 B       |
| Technology                       | 407 | Nspire Students with Technology via Data Collection Using Balloons and Other Fun Resources                                          | Kathleen McKinley            | Convention Ctr. | 115 C       |



# Sessions by Time

MARCH 9  
**Saturday**

| Subject                          | No. | Title                                                                                                                                     | Presenter           | Location        | Room       |
|----------------------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------|------------|
| <b>Saturday 4:00 – 5:30 p.m.</b> |     |                                                                                                                                           |                     |                 |            |
| Administrator                    | 442 | Spicing Up Your Constructions: Piecewise Functions, Small Programs and Other Little Tricks                                                | Adam Pennell        | Convention Ctr. | 110 AB     |
| Algebra I                        | 461 | Exploring Algebra I with the TI-Nspire™ Navigator™ System                                                                                 | Abby Sanchez        | Convention Ctr. | 120 B      |
| Algebra I                        | 462 | Exploring Functions with Sliders and Data Capture                                                                                         | Beatrice Metts-Bell | Convention Ctr. | 120 C      |
| Algebra I                        | 463 | CCSS-aligned TI-Nspired™ Algebra Activities: Hands-on Explorations, Student Opinions and Assessment Results                               | Ann Schlemper       | Convention Ctr. | 121 A      |
| Algebra I                        | 473 | Take a Bite Out of the Common Core with the TI-84 Plus C Silver Edition Graphing Calculator                                               | Sherri Abel         | Marriott        | Franklin 1 |
| Algebra I                        | 485 | Draw Something: Program your Graphing Calculator to Create a Drawing                                                                      | Ann L. Bailey       | Marriott        | Salon J    |
| Algebra II                       | 468 | Engaging students with Nspiring Technology Using the TI-Nspire™ Navigator™ System                                                         | Kevin Rodgers       | Convention Ctr. | 123        |
| Algebra II                       | 470 | Fish, Cars and Recursion                                                                                                                  | Pamela Rawson       | Convention Ctr. | 125        |
| Assessment                       | 444 | Formative Assessment During a Lesson with TI-Nspire™ Technology                                                                           | Deb Nutt            | Convention Ctr. | 112 A      |
| Biology                          | 446 | Investigating Photosynthesis and Respiration with the TI-84 Plus C Silver Edition Graphing Calculator                                     | Judy Day            | Convention Ctr. | 113 A      |
| Calculus                         | 454 | Exploring Real Data in the Calculus Classroom Using the TI-Nspire™ CAS Handheld and the Vernier® System                                   | Douglas Dunkle      | Convention Ctr. | 117        |
| CAS                              | 477 | Number Theoretic Programs for the TI-89 Titanium Graphing Calculator                                                                      | Jay Schiffman       | Marriott        | Franklin 6 |
| CAS                              | 479 | Favorite CAS Activities That Integrate Algebra and Geometry Using the TI-Nspire™ Technology                                               | Tom Reardon         | Marriott        | Franklin 8 |
| CAS                              | 480 | Teaching and Learning with CAS Using the TI-Nspire™ CAS Handheld                                                                          | Tony Farrell        | Marriott        | Franklin 9 |
| Chemistry                        | 447 | Boyles Law with TI-Nspire™ Technology                                                                                                     | Marc Drougel        | Convention Ctr. | 113 B      |
| General Interest                 | 458 | The TI-Nspire™ PublishView™ Feature: Learn How Teachers Create Lesson Plans and Students Create Reports                                   | Wallece Brewer      | Convention Ctr. | 119 A      |
| General Interest                 | 471 | Hands On, Thumbs On, Minds On                                                                                                             | Jean McKenny        | Convention Ctr. | 126 A      |
| General Math                     | 455 | What's So Mean About It? 5 – 7 Grade Common Core State Standards on Data and Statistics                                                   | Jane Martain        | Convention Ctr. | 118 A      |
| General Math                     | 457 | Data Analysis with TI-Nspire™ Technology: Common Core Modeling in the Math Classroom                                                      | Jeremy Zolkowski    | Convention Ctr. | 118 C      |
| General Science                  | 443 | Pressure: Using the Gas Pressure Probe with the TI-84 Plus Silver Edition Graphing Calculator and TI-Navigator™ Classroom Learning System | Greg Williams       | Convention Ctr. | 111 B      |
| General Science                  | 449 | I Have an iPad® – Now What?                                                                                                               | Greg Dodd           | Convention Ctr. | 114        |
| Geometry                         | 464 | Transitioning Through Geometry in the CCSS                                                                                                | Ellen Johnston      | Convention Ctr. | 121 B      |
| Geometry                         | 465 | All Sorts of 2D and 3D Dynamic Investigations Allowed by the Direct Manipulation of Lots of Parameters in TI-Nspire™ Technology           | Jean-Jacques Dahan  | Convention Ctr. | 121 C      |

## Sessions by Time

| Subject                          | No. | Title                                                                                                        | Presenter             | Location        | Room        |
|----------------------------------|-----|--------------------------------------------------------------------------------------------------------------|-----------------------|-----------------|-------------|
| <b>Saturday 4:00 – 5:30 p.m.</b> |     |                                                                                                              |                       |                 |             |
| Middle Grades Math               | 482 | Two, Four Six, Eight: the TI-73 Explorer™ Graphing Calculator is Beyond Great                                | Terrie Poehl          | Marriott        | Franklin 11 |
| Middle Grades Math               | 483 | What's an English Teacher Doing in a Mathematics Classroom?                                                  | Ray Williams          | Marriott        | Franklin 12 |
| Middle Grades Math               | 484 | Meeting Middle School Students' Differentiated Needs Using the TI-84 Plus Silver Edition Graphing Calculator | Pareesa Shirazi       | Marriott        | Franklin 13 |
| Physics                          | 441 | TI-Nspire™ Technology and Vernier® DataQuest™ App: Physics Made Easy                                         | Karlheinz Haas        | Convention Ctr. | 109 B       |
| Physics                          | 448 | Physics Experiments from All Over the World with TI-Nspire™ Technology                                       | Cathy Baars           | Convention Ctr. | 113 C       |
| Precalculus                      | 472 | Making Connections in the Trigonometry Classroom with the TI-Nspire™ Handheld                                | Scott Knapp           | Convention Ctr. | 126 B       |
| Precalculus                      | 474 | Using the TI-84 Plus C Silver Edition Graphing Calculator to Connect Functions and the Real World            | Gloria Barrett        | Marriott        | Franklin 2  |
| Precalculus                      | 475 | That's the Way the Ball Bounces                                                                              | Michelle Merriweather | Marriott        | Franklin 4  |
| Programming                      | 453 | Dynamic Programming with the TI-83 Plus and TI-84 Plus Silver Edition Graphing Calculators                   | Christopher Langhorn  | Convention Ctr. | 116         |
| Statistics                       | 466 | Exploring Variation in the TI-Nspire™ Classroom                                                              | Mike Bevelacqua       | Convention Ctr. | 122 A       |

# Friday Session Details



## 1 Measuring Mechanical Energy Transformations

TI-Nspire™ CX CAS Handheld

Paul Williams, [pwilliamst3@gmail.com](mailto:pwilliamst3@gmail.com), Red Deer, AB, CANADA

Participants will collect motion data of a freely falling pillow and use data analysis techniques to determine the changes in potential and kinetic energy and the energy transferred to air resistance.

**10:15 a.m. - 11:15 a.m.**

**Location:** Convention Ctr.

**Room:** 109 B

Seats: 60

60-Minute Hands-On

GENERAL SCIENCE

## 2 Using the TI-Nspire™ CAS Handheld with TI-Nspire™ Navigator™ System: Lessons Learned

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

David Hallas, [hallasd@winchesterthurston.org](mailto:hallasd@winchesterthurston.org), Winchester Thurston School, Pittsburgh, PA, USA

Co-Presenter: Dennis St. John

What was learned using TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System in Precalculus, Economics and College Algebra courses? This session will address the impact on lesson design, instruction, classroom interaction and learning. Select activities from those courses will be used illustrate how these tools helped the instructors and students. Obstacles and difficulties will also be shared.

**10:15 a.m. - 11:15 a.m.**

**Location:** Convention Ctr.

**Room:** 110 AB

Seats: 40

60-Minute Hands-On

TECHNOLOGY

## 3 Overview of the Winning TI-Nspire™ STEM Project Challenge Entry Highlighting Student Product

Brenda Peterman, [bpeterman@hotsprings1.org](mailto:bpeterman@hotsprings1.org), Hot Springs County High School, Thermopolis, WY, USA

Co-Presenter: London Jenks

This session highlights the award winning project, *When the Wind Blows*, in the 2011/2012 TI-Nspire™ STEM Project Challenge. The presentation will address cross-curricular aspects between Trigonometry, Chemistry, and Physics; project base learning aspects of student investigation instructional methodologies; and technology integration from data collection to posting of student videos and blogs. The Chemistry team evaluates alternate energy options relevant to Thermopolis, Wyoming; Trigonometry teams develop classroom models of wind turbines from which to collect, model, and analyze data; construction of the wind turbine prototype developed by the Physics teams provides the beginning of the next phase, troubleshooting and modifications.

**10:15 a.m. - 11:15 a.m.**

**Location:** Convention Ctr.

**Room:** 111 B

Seats: 60

60-Minute Lecture/Demonstration

GENERAL SCIENCE

## 4 The TI-Nspire™ Navigator™ System: A GPS for Student Learning

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Jeff Van Arnhem, [javanarnhem@gmail.com](mailto:javanarnhem@gmail.com), Olmsted Fall High School, Olmsted Falls, OH, USA

One of our responsibilities as teachers is constantly to monitor student learning in order to guide our teaching. Come see how I integrate the TI-Nspire™ Navigator™ System into my assessment program. The new question types have expanded the diversity of the data I am able to collect to triangulate the students' location in the learning process. With a real-time snapshot of student progress, I can make informed decisions about readjusting our instructional route. With the TI-Nspire™ Navigator™ System, I can also quickly identify the students who are not hitting our learning target, and I can intervene with timely support.

**10:15 a.m. - 11:15 a.m.**

**Location:** Convention Ctr.

**Room:** 112 A

Seats: 40

60-Minute Lecture/Demonstration

ASSESSMENT

## 5 Creating and Analyzing Position-Time Graphs Using the TI-Nspire™ Handheld and the TI-84 Plus Silver Edition Graphing Calculator

TI-Nspire™ CX Handheld, TI-Nspire™ Lab Cradle, TI-84 Plus Silver Edition Graphing Calculator

Charla Holzbog, [cholzbo@lrf.co](mailto:cholzbo@lrf.co), Laying the Foundation, A Division of National Math and Science, Dallas, TX, USA

Explore motion on a horizontal line using a CBR 2™ app with side-by-side presentations on both the TI-Nspire™ Handheld and TI-84 Plus Silver Edition Graphing Calculator. Using the Laying the Foundation lesson, *Variations on Detecting Linear Motion*, participants will engage in collecting data, trimming the data, writing the equation of a good fit line, and calculating a least squares regression line for the data. Additionally, participants will explore creating non-linear graphs and making connections between position, velocity, and acceleration.

**10:15 a.m. - 11:15 a.m.**

**Location:** Convention Ctr.

**Room:** 112 B

Seats: 40

60-Minute Hands-On

GENERAL MATH

## 6 Anatomical Analysis of Your Heart Through EKG Using the TI-Nspire™ Learning Handheld and TI-Nspire™ Lab Cradle

*TI-Nspire™ Learning Handheld, TI-Nspire™ Lab Cradle, TI-Nspire™ Navigator™ System*

*Rob Adams, robert.adams@swcs.us, Franklin Heights High School, Columbus, OH, USA*

Introductory Biology/Anatomy lab using the Vernier® EKG sensor, TI-Nspire™ Learning Handheld, TI-Nspire™ Navigator™ System, and TI-Nspire™ Lab Cradle. Analyze the major features of the heart and determine their function. Trace electrical signals throughout the heart and capture visualizations of the combined electrical activity of the entire heart muscle as it operates. Break down the key components of an EKG and evaluate them before and after exercise. Participants will be able to analyze their own EKG samples at rest and after a minimal amount of exercise. A great hands on lab for beginner and intermediate users.

**10:15 a.m. - 11:15 a.m.**

**Location: Convention Ctr.**

**Room: 113 A**

*Seats: 80*

*60-Minute Hands-On*

BIOLOGY

## 7 Science Olympiad and Texas Instruments 2012-2013

*Michael Smith, cblsmith2@att.net, Big Walnut High School, Sunbury, OH, USA*

*Co-Presenter: Tami Plein*

Over a last few years, Texas Instruments has become more and more involved with the Science Olympiad's competition at both the B and C levels. Come learn more about Science Olympiad, the competition and the role that the TI-Nspire™ Technology will play both at the national and the local competitions in 2012-2013.

**10:15 a.m. - 11:15 a.m.**

**Location: Convention Ctr.**

**Room: 113 B**

*Seats: 80*

*60-Minute Lecture/Demonstration*

GENERAL SCIENCE

## 8 Inquiry Approach to Data Collection in Physics

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Rob Reniewicki, rreniewicki@susd.org, Arcadia High School, Phoenix, AZ, USA*

In this session participants will predict, collect data and create a model for the data for movement such as simple harmonic motion. Various probeware will be used and data will be shared using the TI-Nspire™ Navigator System.

**10:15 a.m. - 11:15 a.m.**

**Location: Convention Ctr.**

**Room: 113 C**

*Seats: 80*

*60-Minute Hands-On*

PHYSICS

## 9 Be Inspired by Your iPad®

*TI-Nspire™ App for iPad®*

*Andy Kemp, andy@kemp.co, Wells Cathedral School, Wells, UNITED KINGDOM*

In this session you will take a quick trip through all the exciting features in the new TI-Nspire™ App for iPad® using some of his favorite TI-Nspire™ activities to show the power of this new application. Come along and discover how your iPad® could become an Inspiring part of your classroom.

**10:15 a.m. - 11:15 a.m.**

**Location: Convention Ctr.**

**Room: 114**

*Seats: 600*

*60-Minute Lecture/Demonstration*

TECHNOLOGY

## 11 Using TI-Nspire™ CAS Handhelds and TI-Nspire™ Navigator™ Systems in a College Algebra Classroom: Questions and Our Answers

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Tharanga Wijetunge, wijet1tm@cmich.edu, Central Michigan University, Mt. Pleasant, MI, USA*

Did the presence of the TI-Nspire™ Navigator™ System and TI-Nspire™ CAS Handheld change the instruction and course content? Did these devices facilitate change communications patterns between the instructor and students? How did the students react to being monitored throughout most class activities? Students quickly learned that the CAS solve command could solve almost all the equations given in class, so how did the class activities and instructor's questions change in such an environment? Did this environment help students develop a better understanding of course concepts and development of skills? This presentation will provide select activities used and initial findings from this study.

**10:15 a.m. - 11:15 a.m.**

**Location: Convention Ctr.**

**Room: 115 B**

*Seats: 80*

*60-Minute Hands-On*

TECHNOLOGY

## 13 Using Texas Instruments Technology to Develop Common Core State Standards Lessons

TI-Nspire™ CX Handheld

Linda Griffith, lindag@uca.edu, Department of Mathematics – University of Central Arkansas, Quitman, AR, USA

Common Core State Standards require that teachers focus not only on content standards but the Standards for Mathematical Practice. This session will explore how TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature can be used as a tool to develop lessons that incorporate not only content standards but the eight Standards for Mathematical Practice.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **116**

Seats: 80

60-Minute Hands-On

AUTHORING

## 14 Workshop for New TI-Nspire™ CAS Handheld Users Teaching Calculus

TI-Nspire™ CX CAS Handheld

Patricia Casey, pcasey@fsu.edu, Florida State University School, Tallahassee, FL, USA

This is a workshop designed for Calculus teachers that are new TI-Nspire™ CAS Handheld users. Part of the focus will be on downloads, webinars, and tutorials. New users will also be introduced to the Calculus Menu and Catalog on the TI-Nspire™ CAS Handheld. Participants also will get an opportunity to practice with TI-Nspire™ Activities and see the ease of using readily available materials.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **117**

Seats: 80

60-Minute Hands-On

CALCULUS

## 15 Common Core Meets TI-Nspire™ Technology

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Audrey Cucci, alsuccci@gmail.com, Poland, NY, USA

Discover ways to utilize the TI-Nspire™ Handheld and TI-Nspire™ Navigator™ System to enhance your Common Core curriculum. Discover motivational techniques to keep students on task. View simple ways to keep and use data to increase your students success rates. Refresh and invigorate your teaching methods and have fun doing it.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **118 A**

Seats: 80

60-Minute Hands-On

GENERAL MATH

## 16 A Heart for Valentine's Day: Limits for Precalculus and Calculus Students and Superellipses

TI-Nspire™ CX CAS Handheld, TI-84 Plus Silver Edition Graphing Calculator

Ron Lancaster, ron2718@nas.net, University of Toronto, Hamilton, ON, CANADA

We will examine a pair of equations that produce the graph of a heart and then we will explore how this graph changes as the equations are gradually altered in a set way. The pattern that emerges will lead us to several limits that can be explained by using the graphs of  $y = x^n$  and the equations of a superellipse. Connections will be made to many mathematical topics including absolute value, power functions, circles, ellipses, area, perimeter and, of course, limits.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **118 B**

Seats: 80

60-Minute Hands-On

GENERAL MATH

## 17 Use the TI-Nspire™ Handheld to Implement the Common Core

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Sherri Abel, sherriabel1014@gmail.com, Legacy Charter School, Greenville, SC, USA

Need to find new ways to engage students in the learning of mathematics? Unsure how to make this happen with the Common Core staring you in the face? Participate in this hands-on session to learn how the TI-Nspire™ Handheld and the TI-Nspire™ Navigator™ System can transform your classroom into a student-centered Mecca where math is what is being discussed. Rich activities will be used to teach those hard to learn/hard to teach concepts. Come prepared to learn and to have fun.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **118 C**

Seats: 80

60-Minute Hands-On

GENERAL MATH

## 18 Lua for All Teachers

John Hanna, jehanna@optonline.net, Hopatcong, NJ, USA

With TI-Nspire™ Technology, you now have the ability to create your own custom applications, greatly expanding your TI-Nspire™ Capabilities. Come learn the basics of Lua programming in a warm and fuzzy place.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **119 A**

Seats: 60

60-Minute Hands-On

PROGRAMMING



## 19 Using the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature for A Modeling Approach to Algebra

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Judith Olson, jkolson@hawaii.edu, University of Hawaii, Honolulu, HI, USA

Co-Presenter: Scott Powell

In *A Modeling Approach to Algebra*, the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature provides a format for the lessons that allows users to easily navigate the curriculum using links and includes imported images, links to Internet resources, and relevant videos to accompany the lessons. Included TI-Nspire™ Files enable students the opportunity to interact with dynamic representations of concepts for classroom instruction. The content targets specific high school Common Core State Standards for Mathematics (CCSSM, 2010), mainly from the Algebra I clusters, while also emphasizing the eight Standards for Mathematical Practice.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **119 B**

Seats: 60

60-Minute Hands-On

ALGEBRA I

## 20 Authoring Tips and Tricks

Bryson Perry, brysonperryjr@msn.com, Lafayette High School, Lexington, KY, USA

Come see the tricks used to create the files on [MathNspired.com](http://MathNspired.com) and [TIMath.com](http://TIMath.com). Bring your own laptop to create files of your own.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **120 A**

Seats: 80

60-Minute Lecture/Demonstration

PROGRAMMING

## 21 Algebra and More with the Common Core

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Heather Riddle, ynglittlemis@cs.com, Granite School District, West Jordan, UT, USA

Co-Presenter: Miguel Garcia

Teachers will participate in several tasks that incorporate the Common Core State Standards. These tasks can be used in the classroom to engage students in the core standards and practice standards. Each participant will receive a CD with all of the materials presented.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **120 B**

Seats: 80

60-Minute Hands-On

ALGEBRA I

## 22 Experience Common Core State Standards Using the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Jean Annette Jones, jeanjones@kcs.kana.k12.wv.us, Herbert Hoover High School, Clendenin, WV, USA

Attention all participants from Common Core States. The TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature has much to offer in lesson building/presentation and I will demonstrate how some if not all 8 math practices can be built into your lessons. Materials will be available to take with you.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **120 C**

Seats: 80

60-Minute Hands-On

ALGEBRA I

## 23 The TI-Nspire™ Handheld and the Algebra CCSS

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Pam Harris, pharris@byu.net, Kyle, TX, USA

Come and explore some new TI-Nspire™ Files that help students meet the Common Core State Standards for Algebra I. We will use a CBR 2™ app and the TI-Nspire™ Handheld together to help students learn important concepts and skills.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **121 A**

Seats: 80

60-Minute Hands-On

ALGEBRA I

## 24 Geometric Constructions Using the TI-Nspire™ Handheld to Meet the Common Core State Standards

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Jaime Burbano, [jburbano@oprfs.org](mailto:jburbano@oprfs.org), Oak Park And River Forest High School, Chicago, IL, USA

Geometric constructions are standards of the Congruence domain in Geometry. Come see how you can use the TI-Nspire™ Handheld to help your students master these standards. No experience is necessary.

**10:15 a.m. - 11:15 a.m.**

**Location:** Convention Ctr.

**Room:** 121 B

Seats: 80

60-Minute Hands-On

GEOMETRY

## 25 The Woe and Wonder

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Katy Edgar, [kswitt75@gmail.com](mailto:kswitt75@gmail.com), New Hope High School, Columbus, MS, USA

Co-Presenter: Kelly Soule

Where do you start when the students and the teacher are clueless? Exploring procedures and activities used in a first-year Geometry teacher's classroom with students who are using the TI-Nspire™ CAS Handheld for the first time.

**10:15 a.m. - 11:15 a.m.**

**Location:** Convention Ctr.

**Room:** 121 C

Seats: 60

60-Minute Hands-On

GEOMETRY

## 26 Exploring Chi Square with the TI-Nspire™ Handheld and TI-Nspire™ Navigator™ System

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Ray Fox, [kenraysr@gmail.com](mailto:kenraysr@gmail.com), Nashville, TN, USA

Use the features of TI-Nspire™ Handheld and TI-Nspire™ Navigator™ System to explore the GOF and Independence of Chi Square. Compare the distribution of mini M&M's® color distribution with standard size. Participants will investigate individually; their counts will be accumulated via the TI-Nspire™ Navigator™ System, aggregated and redistributed for group analysis. The individual XSquare counts are investigated. A second activity will compare the survival aboard HMS Titanic by class of passengers. Discussion will include when to use List & Spreadsheet page versus a matrix.

**10:15 a.m. - 11:15 a.m.**

**Location:** Convention Ctr.

**Room:** 122 A

Seats: 60

60-Minute Hands-On

STATISTICS

## 27 Donors Choose to Help You Get Texas Instruments Technology

Lisa Suarez, [fractalsuar@yahoo.com](mailto:fractalsuar@yahoo.com), Lincoln West High School, Columbia Station, OH, USA

Co-Presenter: Sheryl Edwards

Donors Choose is a website that helps public school teachers fund projects in their classrooms. Come see how teachers have used it and start a proposal that can help you get Texas Instruments Technology for your classroom.

**10:15 a.m. - 11:15 a.m.**

**Location:** Convention Ctr.

**Room:** 122 B

Seats: 160

60-Minute Hands-On

GENERAL INTEREST

## 28 Developing Symbolic Meaning with Dynamically Connected Representations

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Doug Lapp, [lapp1da@cmich.edu](mailto:lapp1da@cmich.edu), Central Michigan University, Mount Pleasant, MI, USA

Co-Presenter: Kristen McMahon

This session explores activities that exploit dynamically-connected representations on the TI-Nspire™ CAS Handheld to develop the connection between concepts of high school algebra and the symbols we use to represent them. The power of dynamic note pages will be used to build manipulatable documents where students can explore concepts and make conjectures. Student work from classroom observations will be shared.

**10:15 a.m. - 11:15 a.m.**

**Location:** Convention Ctr.

**Room:** 123

Seats: 80

60-Minute Hands-On

ALGEBRA II

# Session Details

MARCH 8  
Friday

## 29 An Introduction to Using CAS with Your Students Who Find Mathematics Difficult

TI-Nspire™ CX CAS Handheld

Beverly Farahani, farahanib@limestone.on.ca, Kingston Collegiate & Vocational Institute, Kingston, ON, CANADA

When my department decided to use a Computer Algebra System (CAS), with students, who traditionally find mathematics — especially algebra — difficult, we were pleasantly surprised at the results. This session will share activities that have been used to help students better understand mathematics.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **124**

Seats: 80

60-Minute Hands-On

ALGEBRA II

## 30 Listing Slightly to Port, but Otherwise OK

TI-Nspire™ CX Handheld

Jim Nakamoto, tcubedjim@gmail.com, Richmond, BC, CANADA

If you're perfectly content to sail through the topic of conics with just translation, dilation, and reflection, this session is not for you. (It's a shame you're missing rotation, but that's OK.) For those interested in a bit more, this session will help you investigate the mathematics behind rotation while the TI-Nspire™ Handheld will help you graph and explore rotated conics. Bring a pencil and your trigonometry identities to make two interesting discoveries.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **125**

Seats: 80

60-Minute Hands-On

ALGEBRA II

## 32 Precalculus, TI-Nspire™ Handhelds and TI-Nspire™ CAS Handhelds: A Perfect Match

TI-Nspire™ CX CAS Handheld

Ann Davidian, davidian3@aol.com, Syosset, NY, USA

Enhance your lessons by providing students with a multi-representational approach to Precalculus. Enable your students to take real-world applications of Precalculus and create equations, tables, and graphs that are dynamically linked. Learn how to Nspire your students by creating activities for them and by also using activities that are available from Texas Instruments. Receive ideas and activities to take home and use next week with your class.

10:15 a.m. - 11:15 a.m.

Location: **Convention Ctr.**

Room: **126 B**

Seats: 60

60-Minute Hands-On

PRECALCULUS

## 33 Introducing the Chi Square Goodness of Fit Test with a Simulation on the TI-84 Plus C Silver Edition Graphing Calculator

TI-Nspire™ CX Handheld, TI-84 Plus C Silver Edition Graphing Calculator

Chris True, true1@ix.netcom.com, National Math and Science Initiative, Lincoln, NE, USA

Students will discover the Chi Square distribution via a simulation on the TI-84 Plus C Silver Edition Graphing Calculator and use it to determine if a die is fair.

10:15 a.m. - 11:15 a.m.

Location: **Marriott**

Room: **Franklin 1**

Seats: 60

60-Minute Hands-On

STATISTICS

## 34 Color on the TI-84 Plus C Silver Edition Graphing Calculator: Creatively and Effectively Utilize its Power in Your Mathematics Classroom

TI-84 Plus C Silver Edition Graphing Calculator

Tom Reardon, tom@tomreardon.com, Fitch High School/Youngstown State University, Poland, OH, USA

Appropriate use of color can be an effective teaching and learning tool. Get hands-on experience with this exciting new technology. Color is a game changer. Use it to make connections and help with tough-to-teach mathematical concepts. I have been integrating color into my lessons for years. See how this can be done with the amazing new TI-84 Plus C Silver Edition. We will investigate how to use the new TI-84 Plus C SmartView™ Emulator so that your students will be able to follow what you do immediately — as you do it! Use the emulator to capture screen shots for documents. Get many tips and tricks.

10:15 a.m. - 11:15 a.m.

Location: **Marriott**

Room: **Franklin 2**

Seats: 60

60-Minute Hands-On

GENERAL INTEREST

## 35 Looking at Finance Applications with TI-SmartView™ Emulator for TI-Nspire™

TI-84 Plus Silver Edition Graphing Calculator

Josh Berberian, jberberian@shipleyschool.org, The Shipley School, Bryn Mawr, PA, USA

Mortgages and annuities are two finance applications that have real-world importance for all of us and our students, should they ever want to buy a house or retire at some point. Explore the use of TI-SmartView™ Emulator for TI-Nspire™ and the TI-84 Plus Silver Edition Graphing Calculator in teaching an understanding of how mortgages and annuities work through the use of the finance application and the sequence function.

10:15 a.m. - 11:15 a.m.

Location: Marriott

Room: Franklin 4

Seats: 60

60-Minute Lecture/Demonstration

PRECALCULUS

## 36 Exploring the Power of a Test Using the TI-84 Plus Silver Edition Graphing Calculator: A Graphical Approach

TI-84 Plus Silver Edition Graphing Calculator

Edsel Baker, edsel.baker@missourimilitaryacademy.com, Missouri Military Academy, Mexico, MO, USA

A simple program can be implemented to explore the power of test using the TI-84 Plus Silver Edition Graphing Calculator. After a test of hypothesis is carried out the information is passed to the program to graphically display the power curve for a specified difference that the user desires to detect.

10:15 a.m. - 11:15 a.m.

Location: Marriott

Room: Franklin 6

Seats: 60

60-Minute Hands-On

STATISTICS

## 37 Motivating Students Using STEM Activities

TI-Nspire™ CX Handheld, TI-84 Plus Silver Edition Graphing Calculator

Mary Lou Giannetto, mgiannetto@northsalemsschools.org, North Salem High School, Holmes, NY, USA

Co-Presenter: Lynda Vincent

Participants will leave with STEM activities that they can use with their classes.

10:15 a.m. - 11:15 a.m.

Location: Marriott

Room: Franklin 7

Seats: 60

60-Minute Hands-On

GENERAL INTEREST

## 38 Simulations for Algebra through Precalculus Using the TI-84 Plus Silver Edition Graphing Calculator

TI-84 Plus Silver Edition Graphing Calculator

Alice Hess, ahess@juno.com, Archbishop Ryan High School, Philadelphia, PA, USA

The use of simulation as a tool to lead students to higher order thinking is the focus. Participants will experience several hands-on activities, which have been successfully used with students from Pre-Algebra through Precalculus. They include geometric, binomial and conditional probability.

10:15 a.m. - 11:15 a.m.

Location: Marriott

Room: Franklin 8

Seats: 60

60-Minute Hands-On

ALGEBRA II

## 39 So You Have a Class Set of TI-84 Plus Silver Edition Graphing Calculators: Let's Take Advantage of the Free Apps

TI-84 Plus Silver Edition Graphing Calculator

Beth Smith, bsmitht3@bellsouth.net, Episcopal School of Jacksonville, Jacksonville, FL, USA

There are many free applications for the TI-84 Plus Graphing Calculator family that can help our students make discoveries and better understand many mathematical concepts. We will explore some of these apps, including Transformation Graphing, Inequality Graphing, Polynomial Root Finder and Simultaneous Equation Solver, and Area Formulas. Leave with the knowledge needed to utilize these apps with your students.

10:15 a.m. - 11:15 a.m.

Location: Marriott

Room: Franklin 9

Seats: 60

60-Minute Hands-On

GENERAL MATH

# Session Details

MARCH 8  
Friday

## 40 Develop Number Sense for Grades 4 – 8 with the TI-73 Explorer™ Graphing Calculator and TI-84 Plus Silver Edition Graphing Calculator

*TI-84 Plus Silver Edition Graphing Calculator, TI-73 Explorer™ Graphing Calculator*

*Stuart Moskowitz, sm14@humboldt.edu, Humboldt State University Math Department, Arcata, CA, USA*

Calculators can be used for a lot more than just checking your work. In this hands-on interactive workshop, we'll explore appropriate uses of calculators that will enhance the mathematical understanding of both students and teachers in elementary and middle school. These activities/games help develop and enhance number/fraction sense, estimation and mental math skills. Connections with the Common Core Standards for Mathematical Practices will be discussed. The activities are versatile enough to be used with high school students and parents, too. TI-84 Plus Silver Edition Graphing Calculators and TI-73 Explorer™ Graphing Calculators will be provided or bring your own (non-graphing calculators, too).

**10:15 a.m. - 11:15 a.m.**

**Location: Marriott**

**Room: Franklin 10**

*Seats: 60*

*60-Minute Hands-On*

ELEMENTARY MATH

## 41 The Good, the Bad, & the Ugly: Fractions? Teaching & Learning with the TI-34 MultiView™ Scientific Calculator.

*TI-34 MultiView™ Scientific Calculator, TI-73 Explorer™ Graphing Calculator*

*Chris Ruda, cruda@juno.com, Miami, FL, USA*

Fractions don't have to be ugly. Discover how good use of the TI-34 MultiView™ Scientific Calculator, TI-30XS MultiView™ Scientific Calculator, TI-15 Explorer™ Calculator and manipulatives combine to build conceptual understanding and make fractions meaningful and fun! Participants will engage in hands-on activities that integrate unique features of the Texas Instruments technology, appropriate for all learners. Standards for Mathematical Practice and Content of the Common Core State Standards will be addressed throughout ready-to-use lessons.

**10:15 a.m. - 11:15 a.m.**

**Location: Marriott**

**Room: Franklin 11**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH

## 42 STEM, EL and Your Community Using the TI-Nspire™ Handheld

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Jennifer Toelken, jentoelken@yahoo.com, STEM Middle Academy, Palmer, MA, USA*

Today's students require *valid* learning experiences — a real-world problem doesn't cut it anymore. Come see how to incorporate your community with STEM and EL (Expeditionary Learning) projects with the TI-Nspire™ Handheld.

**10:15 a.m. - 11:15 a.m.**

**Location: Marriott**

**Room: Franklin 12**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH

## 43 Using the TI-Navigator™ Classroom Learning System and TI-73 Explorer™ Graphing Calculators to Explore Math in the Movies

*TI-Navigator™ Classroom Learning System, TI-73 Explorer™ Graphing Calculator*

*Melissa Jackson, jackson.m@deptford.k12.nj.us, Monongahela Middle School, Sewell, NJ, USA*

Come explore the use of the TI-Navigator™ Classroom Learning System and TI-73 Explorer™ Graphing Calculator as they relate to movies and TV shows that involve math. Linear equations and other math topics come alive with this educational technology and math-related movie clips. Participants will leave with a CD of movie clips, activities, and a free Smart Pal that can be readily used in the classroom.

**10:15 a.m. - 11:15 a.m.**

**Location: Marriott**

**Room: Franklin 13**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH

## 44 Data Aggregation Without the Aggravation with the TI-Nspire™ Navigator™ System

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Peggy Welch, peggy.welch@jessamine.kyschools.us, Jessamine Career & Technology Center, Nicholasville, KY, USA*

Tired of waiting until the next day to graph and analyze results, resulting in loss of student interest? Come experience immediate, seamless data aggregation! Collect data with the TI-Nspire™ CAS Handheld and probeware, aggregate class data with the TI-Nspire™ Navigator™ System and it's *back-at-you* to analyze on the handheld.

**11:30 a.m. - 12:30 p.m.**

**Location: Convention Ctr.**

**Room: 109 B**

*Seats: 60*

*60-Minute Hands-On*

GENERAL SCIENCE

## 45 Bringing the TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System into Your Math Classroom

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Tom Steinke, [thomas.steinke@ocsb.ca](mailto:thomas.steinke@ocsb.ca), Mother Teresa High School, Ottawa, ON, CANADA

Where do even start with all this exciting, new technology? This session will walk participants through how you can TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System into your classroom without feeling overwhelmed.

**11:30 a.m. - 12:30 p.m.**

**Location:** Convention Ctr.

**Room:** 110 AB

Seats: 40

60-Minute Lecture/Demonstration

TECHNOLOGY

## 46 The Carbon Cycle and Climate Change with TI-Nspire™ Technology

Tom Green, [wtgreen68@mac.com](mailto:wtgreen68@mac.com), Knabusch Math/Science Center, Addison, MI, USA

Co-Presenter: Tom Cauffield

We will discuss a series of activities that were developed under a NASA Climate Change grant on the Carbon Cycle using TI-Nspire™ Technology and Vernier® Sensors.

**11:30 a.m. - 12:30 p.m.**

**Location:** Convention Ctr.

**Room:** 111 B

Seats: 60

60-Minute Lecture/Demonstration

GENERAL SCIENCE

## 47 Formative Assessment: The Use of Multiple Representations to Help with Understanding

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Sherrina Clark, [sherrina\\_clark@kernhigh.org](mailto:sherrina_clark@kernhigh.org), East Bakersfield High School, Bakersfield, CA, USA

Co-Presenter: Scott Lockhart

Using a linear model about rates of changes we can discover ways to represent the same context in multiple ways. With graphs, tables, and equations, this model can be dynamic in the TI-Nspire™ CAS Handheld and easily displayed with formative assessment through TI-Nspire™ Navigator™ System.

**11:30 a.m. - 12:30 p.m.**

**Location:** Convention Ctr.

**Room:** 112 A

Seats: 40

60-Minute Hands-On

ASSESSMENT

## 48 Exploring Population Growth Using the TI-Nspire™ Handheld and the TI-84 Plus Silver Edition Graphing Calculator

TI-Nspire™ CX Handheld, TI-84 Plus Silver Edition Graphing Calculator, TI-Nspire™ Lab Cradle

Lori Edwards, [ledwards@ltf.co](mailto:ledwards@ltf.co), Laying the Foundation, A Division of National Math and Science, Dallas, TX, USA

Investigate and analyze the types of population growth that states have experienced in the last century with side-by-side presentations on both the TI-Nspire™ Handheld and TI-84 Plus Silver Edition Graphing Calculator. Using the regression feature, model the data using linear, exponential, and/or piecewise functions, and then use these models to extrapolate population estimates and to discuss the validity of the predictions. This Laying the Foundation lesson also introduces the definition and interpretation of residuals in the context of a set of data. Several Common Core State Standards of Mathematical Content and Practice will be addressed in the activity.

**11:30 a.m. - 12:30 p.m.**

**Location:** Convention Ctr.

**Room:** 112 B

Seats: 40

60-Minute Hands-On

ALGEBRA I

## 49 Giving Data a Life of Its Own

TI-Nspire™ CX Handheld

Jeff Lukens, [jeffrey.lukens@k12.sd.us](mailto:jeffrey.lukens@k12.sd.us), Roosevelt High School, Sioux Falls, SD, USA

C'mon, Biology teachers! It's time that we collect and analyze data in our high school Biology classrooms! There's no excuse anymore because the tools are available that make the data collection fast, easy and cheap. Come to this session and experience the new world that is waiting to be discovered by Biology teachers.

**11:30 a.m. - 12:30 p.m.**

**Location:** Convention Ctr.

**Room:** 113 A

Seats: 80

60-Minute Hands-On

BIOLOGY



## 50 H<sub>2</sub>O<sub>2</sub>: Friend or Foe?

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Ray Lesniewski, chemguy65@yahoo.com, Jones College Prep, Chicago, IL, USA

Hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) is an interesting chemical. Its chemical structure is just one atom different than water yet its molecules have a wide variety of applications ranging from rocket propellant to antimicrobial agent to odor management in wastewater treatment systems. In this workshop we will use a gas pressure sensor to determine the real reaction time needed to reach a safe level of hydrogen peroxide in a contact lens disinfection system. This is a unique AP\* Chemistry lab originally published in the *Journal of Chemical Education* and is now adapted for the TI-Nspire™ CX CAS Handheld.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **113 B**

Seats: 80

60-Minute Hands-On

CHEMISTRY

## 51 Probing for Excellence

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Mike Cimino, macimino@volusia.k12.fl.us, Heritage Middle School, Deltona, FL, USA

We have all heard the numerous buzzwords in education lately, let this session show you how to implement them! Using TI-Nspire™ Technology we will explore an assortment of labs and simulations that can be done in a single class period. These labs will show you how technology can be integrated in assisting teachers to make real world connections along with keeping your class highly engaged.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **113 C**

Seats: 80

60-Minute Hands-On

MIDDLE GRADES SCIENCE

## 52 Turning iCan't into iCan with the iPad®: Teaching and Learning Using the iPad® in a High School Mathematics Classroom

TI-Nspire™ App for iPad®

Andrew Benzing, abenzing@wssd.org, Strath Haven High School, Wallingford, PA, USA

Is use of an iPad® by students an expensive gimmick or does it improve performance? Come see for yourself and have my pain be your gain (not an abs workout) as favorite apps are shared that utilize an iPad® in a high school mathematics classroom. From note taking and file management to instant response systems and student presentations, much will be covered so put a pen (or stylus) in both hands and get ready to go! Bringing an iPad® is not necessary though you will want one after this session.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **114**

Seats: 600

60-Minute Lecture/Demonstration

TECHNOLOGY

## 56 Conditional Formatting: Energize Your Documents

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Ellen Browne, esbrowne@pomfretschool.org, Pomfret School, Pomfret, CT, USA

This session will be an introduction to using the conditional attributes feature on the TI-Nspire™ CAS Handheld. Come find out how to use it to help your students comprehend concepts in depth more quickly. Design short but interesting documents to strengthen and re-invigorate your lessons.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **116**

Seats: 80

60-Minute Hands-On

AUTHORING

## 57 Let's Explore the Derivative with the TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Vicki Carter, carter@bellsouth.net, West Florence High School, Timmonsville, SC, USA

The introduction of the derivative in calculus is an exciting experience with the TI-Nspire™ CAS Handheld. In this session, participants will explore classroom activities on the definition of the derivative, derivative functions, and the Mean Value Theorem. Participants will also consider how these activities may help students make connections when working on AP\* Calculus Free Response Questions.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **117**

Seats: 80

60-Minute Hands-On

CALCULUS

## 58 3D Graphs Using a TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld

Juana Yadira Martín Perico, [juanamartin@usantotomas.edu.co](mailto:juanamartin@usantotomas.edu.co), Universidad Santo Tomas – Universidad Iberoamericana, Bogotá, COLOMBIA

Co-Presenter: Manuel Antonio Montero Gaona

The main advantage is that figures are no longer static because they pass from paper to the screen, giving the user the possibility of immerse himself in a virtual visual space in which the illusion of reality is created by experimenting depth in a simulated tridimensional coordinate system. This allows him to interact in such a way as to observe the surfaces from different points of view and even modify them by making changes to the design conditions, allowing him to analyze the new results as well as visually identify functions that can be defined in the form.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **118 A**

Seats: 80

60-Minute Hands-On

GENERAL MATH

## 59 Teaching Techniques for Digital Students Using the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Stephanie MacKay, [stephanie.mackay@ecsd.net](mailto:stephanie.mackay@ecsd.net), Archbishop O'Leary High School, Edmonton, AB, CANADA

Co-Presenter: Ron Kennedy

Now that your students have a TI-Nspire™ Handheld, how do you adjust your teaching style to connect with these digital learners? Inquiry-based questioning techniques and question sentence starters will be given to support TI-Nspire™ Action/Consequence Files. Various teaching methods to support the 21st century learner and strategies to promote problem solving strategies for students will be demonstrated.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **118 B**

Seats: 80

60-Minute Lecture/Demonstration

GENERAL MATH

## 60 Transitioning from the TI-84 Plus Silver Edition Graphing Calculator to the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld

David Sword, [dsword1@hotmail.com](mailto:dsword1@hotmail.com), Grosse Pointe, MI, USA

OK, you're ready to cross over. Confession: This presenter *loved* the TI-84 Plus Silver Edition Graphing Calculator (still does, actually, and had reservations about the TI-Nspire™ Handheld at the beginning). But the TI-Nspire™ Handheld is everything that the TI-84 Plus Silver Edition Graphing Calculator is and much, much more. You've just got to get over the hump of making the connections between the two. This session is designed to help you make those connections.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **118 C**

Seats: 80

60-Minute Hands-On

GENERAL MATH

## 61 Using the TI-Nspire™ CAS Handheld to Master Trig Ratios

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Allister Wadden, [bawadden@nstu.ca](mailto:bawadden@nstu.ca), Annapolis West Education Centre, Annapolis Royal, NS, CANADA

In this activity, students discover the trigonometric ratios through measuring the side lengths of similar triangles and calculating their ratios. The formal definitions of the sine, cosine, and tangent or an angle are presented and applied to find the missing side lengths.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **119 A**

Seats: 60

60-Minute Hands-On

ALGEBRA I

## 62 Creating Questions Using the TI-Nspire™ Navigator™ System

Audrey Cucci, [alscucci@gmail.com](mailto:alscucci@gmail.com), Frankfort-Schuyler High School, Poland, NY, USA

Learn how to create multiple question types using the TI-Nspire™ Navigator™ System. See how sending and collecting these questions can give you instant data analysis on the understanding of your students. See how quick poll can be used to keep students on task and motivated throughout your lessons.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **119 B**

Seats: 60

60-Minute Hands-On

GENERAL INTEREST

# Session Details

MARCH 8  
Friday

## 63 Introduction to TI-Nspire™ Navigator™ Teacher Software PublishView™ Documents

Patricia Brooks, [pbrooks@powayusd.com](mailto:pbrooks@powayusd.com), Del Norte High School, San Diego, CA, USA

Participants will learn to create web based interactive lesson worksheets using the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **120 A**

Seats: 80

60-Minute Hands-On

GENERAL INTEREST

## 64 Physical Science + Algebra I + PBL + TI-Nspire™ CAS Handheld = A New Tech Way to Teach and Learn

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Sheryl Edwards, [sheredwa@gmail.com](mailto:sheredwa@gmail.com), New Tech West, Cleveland, OH, USA

Co-Presenter: Lisa Suarez

This session will focus on how the TI-Nspire™ CAS Handheld worked to help teachers and students to connect Math, Science and project-based learning at New Tech West High School in Cleveland, Ohio. The session will focus on TI-Nspire™ Activities involving Newton's Laws of Motion.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **120 B**

Seats: 80

60-Minute Hands-On

ALGEBRA I

## 65 TI-Nspire™ Handheld in Geometry: Using a Discrete Tool to Better Display Continuous Mathematics

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Lois Paris, [lois.paris@powhatan.k12.va.us](mailto:lois.paris@powhatan.k12.va.us), Powhatan High School, Powhatan, VA, USA

Co-Presenter: Timothy Barnes

This hands-on session is geared for high school mathematics teachers that are looking for ways to integrate the TI-Nspire™ Handheld into their Geometry classes.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **120 C**

Seats: 80

60-Minute Hands-On

GEOMETRY

## 67 Make the Transformation: Geometry to Nspired Geometry

TI-Nspire™ CX Handheld

Jamie Liptock, [jliptock@gmail.com](mailto:jliptock@gmail.com), Annapolis High School, Laurel, MD, USA

So you're teaching Geometry and you have an TI-Nspire™ Handheld. Now what? Transform your Geometry classroom in a world of dynamic Geometry with the handheld. In this hands-on session we'll use the geometry application of the calculator to explore activities important to the Geometry curriculum and aligned to Common Core. From warm-ups to class activities and formative assessments, you'll be transforming your Geometry class into an Nspired one in no time.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **121 B**

Seats: 80

60-Minute Hands-On

GEOMETRY

## 68 TI-Nspire™ CAS Handheld: Construct the Points of Concurrency in a Triangle

TI-Nspire™ CX CAS Handheld

Ninamarie Sapuppo, [nsapuppo@admin.fsu.edu](mailto:nsapuppo@admin.fsu.edu), Florida State University Schools, Tallahassee, FL, USA

In this beginner session, participants will experience using the TI-Nspire™ CAS Handheld for the construction of altitudes, medians, angle bisectors and perpendicular bisectors within various types of triangles. Relationships between the location of the points of concurrency and the type of triangle will be explored, as well as the construction of incircles and circumcircles. Extensions include identifying the Euler Line.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **121 C**

Seats: 60

60-Minute Hands-On

GEOMETRY

## 69 Teach AP\* Statistics Next Year with TI-Nspire™ Software

John Mahoney, [johnf.mahoney@gmail.com](mailto:johnf.mahoney@gmail.com), Benjamin Banneker Academic High School, Washington, DC, USA

Teaching or considering teaching AP\* Statistics? The co-chair of the College Board's AP\* Statistics Development Committee will show you how to improve your teaching of the course through the use of 30 TI-Nspire™ Software classroom demonstrations that he wrote. The purpose of this session is to help teachers improve their students' understanding of fundamental concepts in AP\* Statistics through the use of technology.

11:30 a.m. - 12:30 p.m.

Location: **Convention Ctr.**

Room: **122 A**

Seats: 60

60-Minute Lecture/Demonstration

STATISTICS

## 70 Exploring Online Resources for TI-Nspire™ Technology

Thomas Coleman, [coleman\\_thomas\\_d@yahoo.com](mailto:coleman_thomas_d@yahoo.com), University of Maryland at College Park, Towson, MD, USA

The internet provides a wealth of resources pertinent to teaching and learning with TI-Nspire™ Technology. In this session we will explore [education.ti.com](http://education.ti.com), [MathNspired.com](http://MathNspired.com) and other websites in order to discover and examine the tutorial video clips, pre-made activities, connectivity software, operating system updates and other downloads available to the TI-Nspire™ Technology user.

**11:30 a.m. - 12:30 p.m.**

**Location:** Convention Ctr.

**Room:** 122 B

Seats: 160

60-Minute Lecture/Demonstration

GENERAL INTEREST

## 71 Thinking Graphically: Using Multiple Representations on the TI-Nspire™ CAS Handheld as a New Way to Solve Old Problems

TI-Nspire™ CX CAS Handheld

Matt Rhodes, [mrhodes@kcs.kana.k12.wv.us](mailto:mrhodes@kcs.kana.k12.wv.us), St. Albans High School, St. Albans, WV, USA

Come see new ways to present familiar topics with emphasis on the Graphing application of the TI-Nspire™ CAS Handheld. From solving equations and understanding slope-intercept form to function families and transformations, a graphical approach will be used as a framework for student exploration and investigation as well as a basis for supporting solutions. Through rich mathematics and interactive, hands-on demonstrations, this session is for the beginner and veteran alike.

**11:30 a.m. - 12:30 p.m.**

**Location:** Convention Ctr.

**Room:** 123

Seats: 80

60-Minute Hands-On

ALGEBRA II

## 73 An Nspired Look at Transformations in Algebra

Landy Godbold, [l.godbold@comap.com](mailto:l.godbold@comap.com), The Westminster Schools, Atlanta, GA, USA

Many activities help students infer what multiplications and additions to or inside functions accomplish. This session will not do any of that. Instead we will crawl under the hood of transformations and discover what makes them tick. Now you will have an answer when students say, I see what it does, but *why* does it work like that? We will use our feet (for real!) along with spreadsheet functionality, dynamic mapping diagrams, and more. Learn how to build and interpret *any* sequence of *any* number of transformations of *any* kind! Wow and amaze your friends.

**11:30 a.m. - 12:30 p.m.**

**Location:** Convention Ctr.

**Room:** 125

Seats: 80

60-Minute Lecture/Demonstration

ALGEBRA II

## 74 Introduction To Grant Writing: Beginning the Quest for Funding for Technology

Louise Chapman, [lchapman@volusia.k12.fl.us](mailto:lchapman@volusia.k12.fl.us), Deland, FL, USA

Co-Presenter: Jackie Bonneau

Come and learn the jargon related to grant writing and the basic steps to writing your own first grant. Begin the process and learn how to find the way to write to fund your classroom needs and desires.

**11:30 a.m. - 12:30 p.m.**

**Location:** Convention Ctr.

**Room:** 126 A

Seats: 180

60-Minute Hands-On

GENERAL INTEREST

## 75 Math and Physics in Music with the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld, TI-Nspire™ Lab Cradle

Prudence Cain, [pcain@austin.utexas.edu](mailto:pcain@austin.utexas.edu), University of Texas at Austin – UTEACH, Austin, TX, USA

Participants will explore wave characteristics (amplitude, period, frequency, etc) using the Vernier® DataQuest™ App, TI-Nspire™ Handheld and microphone sensor. Participants will determine what characteristic of certain sound combinations that make them harmonious or discordant. This activity is adapted from a project-based lesson integrating physics and precalculus.

**11:30 a.m. - 12:30 p.m.**

**Location:** Convention Ctr.

**Room:** 126 B

Seats: 60

60-Minute Hands-On

PRECALCULUS

# Session Details

MARCH 8  
Friday

## 76 Fun Stat Activities to Use with Your TI-84 Plus C Silver Edition Graphing Calculator

*TI-84 Plus C Silver Edition Graphing Calculator*

*Sharon Cichocki, scichock@buffalo.edu, Hamburg High School, Hamburg, NY, USA*

Hands-on stat activities that encourage class participation and learning on the TI-84 Plus C Silver Edition Graphing Calculator.

**11:30 a.m. - 12:30 p.m.**

**Location: Marriott**

**Room: Franklin 1**

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA II

## 77 Never Programmed? No Problem! Write Prompt-Store-Display Programs for Algebra Using the TI-84 Plus C Silver Edition Graphing Calculator

*TI-84 Plus C Silver Edition Graphing Calculator*

*Jim Haskins, jimhaskins@charter.net, GA Military College, Milledgeville, GA, USA*

Students feel powerful when they can do simple programming with graphing handhelds as well as harness the capabilities of the calculator. Understanding of solving systems of equations and using the quadratic formula can be enhanced by writing/using simple programs. These programs, and others like them, make both homework and classwork more accessible and more likely to be done.

**11:30 a.m. - 12:30 p.m.**

**Location: Marriott**

**Room: Franklin 2**

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA I

## 78 TI-84 Plus Silver Edition Graphing Calculator Apps for Middle School and Algebra I

*TI-Navigator™ Classroom Learning System, TI-84 Plus Silver Edition Graphing Calculator*

*Gina Allred, rallred@ti.com, Franklinville, NC, USA*

Using the TI-Navigator™ Classroom Learning System and TI-84 Plus Silver Edition Graphing Calculator, you will see some apps and activities for use in middle school and Algebra I. We will explore rational rampage, Algebra I part 1, inequality graphing along with the birthday problems and much more.

**11:30 a.m. - 12:30 p.m.**

**Location: Marriott**

**Room: Franklin 4**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH

## 79 Dust off your TI-Navigator™ Classroom Learning System

*TI-Navigator™ Classroom Learning System, TI-84 Plus Silver Edition Graphing Calculator*

*Kymn Van Dyken, kymn\_v@yahoo.com, National Connections Academy, Raynesford, MT, USA*

Maximize the benefits of your unused TI-Navigator™ Classroom Learning System. Learn how easy it is to motivate students and build conceptual understandings and review skills. You will participate in activities, quick polls and quick checks. Attendees will receive ready to use activities and see the growth one school experienced while incorporating the TI-Navigator™ Classroom Learning System into math classes. This workshop is best suited for beginners with content for middle school and high school math classes.

**11:30 a.m. - 12:30 p.m.**

**Location: Marriott**

**Room: Franklin 6**

*Seats: 60*

*60-Minute Hands-On*

TECHNOLOGY

## 80 Statistics for Middle School Using the TI-73 Explorer™ Graphing Calculator

*TI-73 Explorer™ Graphing Calculator*

*Gail Gallitano, ggallitano@wcupa.edu, West Chester University, West Chester, PA, USA*

This workshop will use the TI-73 Explorer™ Graphing Calculator. Participants will use the many features of this handheld to do statistics on the middle school level. Included will be descriptive statistics, numerous statistics graphs, the binomial distribution, the normal distribution, confidence intervals and hypothesis testing. All activities will be hands on and all materials will be provided.

**11:30 a.m. - 12:30 p.m.**

**Location: Marriott**

**Room: Franklin 7**

*Seats: 60*

*60-Minute Hands-On*

STATISTICS



## 81 Grouping, Home Screen Sequencing, Web Plots and Other TI-84 Plus Silver Edition Graphing Calculator Strategies

*TI-Navigator™ Classroom Learning System, TI-84 Plus Silver Edition Graphing Calculator*

*Johnny Ashurst, johnny.ashurst@gmail.com, Harlan High School, Harlan, KY, USA*

*Co-Presenter: Rachael Gorsuch*

A baker's dozen of TI-84 Plus Silver Edition Graphing Calculator skills will be presented in context, including grouping, ungrouping, interactive lists, formulas in lists, random integer with no repeat, home screen sequencing, recursive relations, explicit functions and web plots.

**11:30 a.m. - 12:30 p.m.**

**Location: Marriott**

**Room: Franklin 8**

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA I

## 82 CCSS + Interactive White Board + TI-84 Plus Silver Edition Graphing Calculator = Student Engagement

*TI-84 Plus Silver Edition Graphing Calculator*

*Terry Politi, tpoliti@ccps.org, Cecil County Public Schools, Elkton, MD, USA*

The Common Core is coming, so how do we make it come alive for our students? We will be looking at problems that the students need to persevere in solving by using appropriate tools strategically to model their answers. We will be using SMART Notebook™ software along with the TI-84 Plus Silver Edition Graphing Calculator that will focus on Algebra II, but other high school courses will be discussed. Teachers will walk away with items that they can use in their classroom.

**11:30 a.m. - 12:30 p.m.**

**Location: Marriott**

**Room: Franklin 9**

*Seats: 60*

*60-Minute Lecture/Demonstration*

ALGEBRA II

## 84 Middle School Activities Using the TI-84 Plus Silver Edition Graphing Calculator

*TI-84 Plus Silver Edition Graphing Calculator*

*Sarah Bauguss, sarahbauguss@katyisd.org, Morton Ranch Junior High, Katy, TX, USA*

This hands-on session will feature calculator activities to support middle school math instruction. Topics will include multiple representations of data, graphing, fraction computations, conversion, solving equations, and much more. A demonstration of application (APPS) programs will also be provided including Probability Simulations, Decimal Defender, and Area Formulas. Graphing calculators will be available for use or feel free to bring your own.

**11:30 a.m. - 12:30 p.m.**

**Location: Marriott**

**Room: Franklin 11**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH

## 85 Infusing Technology into the Middle School Mathematics Classroom with Common Core State Standards

*TI-Nspire™ CX Handheld, TI-Nspire™ Lab Cradle*

*Vanessa Wimberly, M. Ed., vrwimberly@philasd.org, Overbrook Educational Center, Philadelphia, PA, USA*

*Co-Presenter: Phyllis Dumond*

Teachers and students will experience new levels of synergy among Science, Technology, and Mathematics by practicing Texas Instruments lessons that incorporate Common Core State Standards on a Middle School level. Participants will Infuse TI-Nspire™ Technology into their daily Math experience.

**11:30 a.m. - 12:30 p.m.**

**Location: Marriott**

**Room: Franklin 12**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH

## 86 Pump It Up

*TI-Navigator™ Classroom Learning System, TI-84 Plus Silver Edition Graphing Calculator*

*Susan Riker, sriker@ti.com, Kalamazoo, MI, USA*

This session will take a look at a group activity, the Mathematical Practices of the Common Core State Standards found in the activity, what the Mathematical Practices of the Common Core are, and how to pump up a lesson to include those Mathematical Practices.

**11:30 a.m. - 12:30 p.m.**

**Location: Marriott**

**Room: Franklin 13**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH



## 87 Nspired Forensics

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Jacklyn Bonneau, [bonneau@wpi.edu](mailto:bonneau@wpi.edu), Mass Academy, North Grosvenordale, CT, USA

Forensics was done for the TI-84 Plus now it is done for the TI-Nspire™ CAS Handheld. Come and do some of those activities and see how they can be integrated into several traditional areas of science.

1:30 p.m. - 2:30 p.m.

Location: **Convention Ctr.**

Room: **109 B**

Seats: 60

60-Minute Hands-On

GENERAL SCIENCE

## 88 Making the Leap: Instituting TI-Nspire™ Technology across Math and Science in High School

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Barbara Ward, [phdward93@yahoo.com](mailto:phdward93@yahoo.com), Montgomery High School, Montgomery, TX, USA

Do you want your district to switch to TI-Nspire™ Technology? Not sure how to get it done? Come see how Montgomery ISD made the switch from TI-84 Plus Silver Edition Graphing Calculators to the TI-Nspire™ Handheld for the 2012-2013 school year. We will discuss advertising, student purchase plan, teacher training, successful activities used and roadblocks. I will share the documents I used to convince administrators, teachers, students, and parents to adopt the slogan: *The official calculator for MISD ... and the only one you will need between now and your dissertation.*

1:30 p.m. - 2:30 p.m.

Location: **Convention Ctr.**

Room: **110 AB**

Seats: 40

60-Minute Hands-On

TECHNOLOGY

## 90 Organizing Your Lessons with Questions

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle

Denny St. John, [stjoh1d@cmich.edu](mailto:stjoh1d@cmich.edu), Central Michigan University, Mount Pleasant, MI, USA

Co-Presenter: David Hallas

Classroom questions can be used to find out what your students know, believe and care about. Students' answers can be used to inform and transform lessons to address motivation, retention and foster development of higher order skills and durable connections between concepts. Ideas to improve classroom discussions will be modeled and combined with use of TI-Nspire™ Navigator™ System into session activities.

1:30 p.m. - 2:30 p.m.

Location: **Convention Ctr.**

Room: **112 A**

Seats: 40

60-Minute Hands-On

ASSESSMENT

## 91 Determining Iodine Concentration in Water Using the TI-Nspire™ CX CAS Handheld and Colorimeter

TI-Nspire™ CX CAS Handheld, TI-84 Plus Silver Edition Graphing Calculator

Lisa McGaw, Laying the Foundation, A Division of National Math and Science, Dallas, TX, USA

Using a standard iodine solution representing water purification in the International Space Station, participants will prepare a series of solutions to create a standard curve. An unknown iodine solution will be determined from this data. This TI-Nspire™ Lesson was co-developed by NASA and Laying the Foundation to address a topic that may be new to many teachers and students.

1:30 p.m. - 2:30 p.m.

Location: **Convention Ctr.**

Room: **112 B**

Seats: 40

60-Minute Hands-On

CHEMISTRY

## 92 This Session Contains MSG: Math, Science and Genetics

TI-Nspire™ CX Handheld

Shawn Schlueter, [sschlueter@esc14.net](mailto:sschlueter@esc14.net), Abilene, TX, USA

Take new ways to teach genetics back to your classroom and see the underlying statistics that make living things work. Come away with ready to use activities for your TI-Nspire™ Handheld focused on heredity and genes that integrate math concepts, data collection and a better understanding of Punnett squares.

1:30 p.m. - 2:30 p.m.

Location: **Convention Ctr.**

Room: **113 A**

Seats: 80

60-Minute Hands-On

BIOLOGY

## 93 How Do We Know What They Know in Chemistry? Formative Assessment in Chemistry.

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Todd Morstein, morsteint@sd5.k12.mt.us, Glacier High School, Kalispell, MT, USA*

Use the TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System to assess your classes on concepts every day. This session will focus in the use of student data to guide your decisions on what to teach and when. Use quick polls, five-minute assessment for formative assessment.

**1:30 p.m. - 2:30 p.m.**

**Location: Convention Ctr.**

**Room: 113 B**

*Seats: 80*

*60-Minute Hands-On*

CHEMISTRY

## 94 Parabolas in the Real World: New Looks at Old Problems

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Fred Browning, fred\_browning@pba.edu, Palm Beach Atlantic University, West Palm Beach, FL, USA*

Participants will investigate parabolas from both a math and science perspective, in basketballs, the Angry Birds™ game, golf balls and more. By looking at such topics as coefficient of restitution, gravity and tangent lines, we will explore STEM ideas in new ways.

**1:30 p.m. - 2:30 p.m.**

**Location: Convention Ctr.**

**Room: 113 C**

*Seats: 80*

*60-Minute Lecture/Demonstration*

PHYSICS

## 95 Well Known Thinking Errors and Other Teaching Ideas

*TI-Nspire™ App for iPad®*

*Andreas Pollack, Soest, GERMANY*

A mass of people are at a roulette table. They got black 12 times. Which color are you going to choose now? Are you again the slowest of the queue at the cash desk? You can believe me: This happens so often to me! Our perception and objective view of a situation often drift apart. In this lecture about classic thinking errors, a lot of current examples are presented and analyzed. A focus is set on how these examples can be used to design attractive mathematics and science lessons using TI-Nspire™ App for iPad®.

**1:30 p.m. - 2:30 p.m.**

**Location: Convention Ctr.**

**Room: 114**

*Seats: 600*

*60-Minute Lecture/Demonstration*

GENERAL MATH

## 97 What's New? TI's Latest Addition to Integrating Technology.

*Dona McSpadden, smilesfromdona@gmail.com, ALLPS And McNair Middle School, Fayetteville, AR, USA*

Get a hands-on interactive experience with the latest Texas Instruments technology. Students and teachers are excited about the level of engagement and incorporation of existing classroom practices with technology. The latest TI technology provides fun and teachable moments with a seamless integration. Students are provided with an individualized experience, and they can work at their own pace.

**1:30 p.m. - 2:30 p.m.**

**Location: Convention Ctr.**

**Room: 115 B**

*Seats: 80*

*60-Minute Hands-On*

TECHNOLOGY

## 98 Exploring Uses for PhET™ Web-based Interactive Simulations: Some Sims Also Available for TI-Nspire™ Handheld

*TI-Nspire™ CX Handheld*

*Trish Loeblein, patricia.loeblein@colorado.edu, PhET University of Colorado Boulder, Boulder, CO, USA*

PhET™ simulations provides free interactive researched-based simulations designed for inquiry learning in STEM topics. Learn about using simulations to help students meet NETS and STEM standards. All PhET™ simulations can be used with computers, but now some are becoming available on the TI-Nspire™ CX Handheld. We will show the PhET™ simulation website, describe how the simulations are developed using education research, introduce ideas for using PhET™ simulation inquiry-based activities in many educational settings and show how you can use TI-Nspire™ Handhelds to use simulations that have been modified by Texas Instruments.

**1:30 p.m. - 2:30 p.m.**

**Location: Convention Ctr.**

**Room: 115 C**

*Seats: 80*

*60-Minute Hands-On*

TECHNOLOGY

## 99 Why Learn Lua? It's Worth It!

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Marc Garneau, piman@telus.net, Surrey, BC, CANADA*

So you've done some creative constructing and/or programming on the TI-Nspire™ CAS Handheld, and you're wondering if it's worth learning how to use Lua. My answer is an enthusiastic yes! In this session I will highlight the benefits that Lua has to offer for creating powerful learning documents.

**1:30 p.m. - 2:30 p.m.**

**Location: Convention Ctr.**

**Room: 116**

*Seats: 80*

*60-Minute Lecture/Demonstration*

PROGRAMMING

## 100 Integrating the TI-Nspire™ CAS Handheld in Your AP\* Calculus Curriculum

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Kim Schjelderup, kim\_mcfadden7@msn.com, Mercer Island High School, Mercer Island, WA, USA*

*Co-Presenter: Lynn Adsit*

Integrating new technology can be a challenge in any curriculum. Add to that the expectation you cover all required curriculum and your students perform well on the AP\* Exam. Looking for increased scores and improved student understanding? Then this is your session. During this 90-minute hands-on training you will learn how to successfully integrate the TI-Nspire™ CAS Handheld into your AP\* Calculus classroom. You will leave the session with new knowledge and activities that will enhance your program and increase student performance.

**1:30 p.m. - 2:30 p.m.**

**Location: Convention Ctr.**

**Room: 117**

*Seats: 80*

*60-Minute Hands-On*

CALCULUS

## 101 Ultimate Brackets: A World Premier

*TI-Nspire™ CX Handheld*

*Nevil Hopley, nevil@calculatorsoftware.co.uk, George Watson's College, Edinburgh, UNITED KINGDOM*

This session will centre around the development and use of Ultimate Brackets a TI-Nspire™ CX Handheld document that provides students with unlimited, tailored practice at both expanding and factorising algebraic expressions. The document intelligently challenges and supports students as their algebraic skills improve. Originally designed by Nevil Hopley in 2005 for the TI-84 Plus Silver Edition Graphing Calculator, he has rewritten it (in Lua) for both the numeric and CAS handhelds with many significant enhancements. This new version has been tried extensively in classrooms since August 2012. Come along to this world premier to obtain a copy of what will surely become your favorite algebraic teaching activity.

**1:30 p.m. - 2:30 p.m.**

**Location: Convention Ctr.**

**Room: 118 A**

*Seats: 80*

*60-Minute Hands-On*

GENERAL MATH

## 102 Using the TI-Nspire™ Handheld to Teach Statistics for Common Core

*TI-Nspire™ CX Handheld*

*Joshua Underdonk, joshuaunderdonk@hotmail.com, Morgantown, WV, USA*

Session will include a hands-on approach to teaching Statistics from the Common Core. Participants will create easy to use files that can be implemented directly into their classrooms. A list of the instructor's favorite files will be accessible throughout the session.

**1:30 p.m. - 2:30 p.m.**

**Location: Convention Ctr.**

**Room: 118 B**

*Seats: 80*

*60-Minute Hands-On*

GENERAL MATH

## 104 Related Rate Simulations

*Pat Mara, mathmara@comcast.net, South High School, Pueblo, CO, USA*

Participants will be given a template to write related rate simulations using the TI-Nspire™ CAS Handheld.

**1:30 p.m. - 2:30 p.m.**

**Location: Convention Ctr.**

**Room: 119 A**

*Seats: 60*

*60-Minute Hands-On*

AUTHORING

## 106 Using the TI-Nspire™ Navigator™ NC System in a Laptop-ed Classroom

TI-Nspire™ CX Navigator™ NC System

David Young, dayoung7@gmail.com, Fayetteville High School, Fayetteville, AR, USA

Come see and use the networked TI-Nspire™ Navigator™ NC System and learn some tips and tricks to make it run smoothly in your connected classroom.

**1:30 p.m. - 2:30 p.m.**

**Location:** Convention Ctr.

**Room:** 120 A

Seats: 80

60-Minute Hands-On

GENERAL INTEREST

## 107 Solving Systems Using the TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Julie Speelman, jmspeelman@gmail.com, Madeira High School, Cincinnati, OH, USA

This session will examine the three ways of solving systems of equations — graphing, substitution and linear combinations — as well as solving systems of inequalities using the TI-Nspire™ CAS Handheld and the TI-Nspire™ Navigator™ System. The quick poll feature will be used to assess participant progress. Attendees will participate in the examples and classroom-ready tasks for each method of solving systems of equations as well as solving systems of inequalities. These examples and tasks will be provided to attendees.

**1:30 p.m. - 2:30 p.m.**

**Location:** Convention Ctr.

**Room:** 120 B

Seats: 80

60-Minute Hands-On

ALGEBRA I

## 108 Getting Started with the TI-Nspire™ Handheld in Your Mathematics Classroom

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Ruth Casey, ruthcasey@aol.com, Frankfort, KY, USA

Co-Presenter: Margaret Bambrick

Come explore mathematics topics in a Math Nspired environment. Learn how to use the TI-Nspire™ Handheld and the activities from TI Math Nspired resource center in the teaching and learning of mathematics. We will use a variety of instructional tools and strategies as we investigate topics such as linear equations, slope, functions, transformations, proportional reasoning, and more. This is for beginning TI-Nspire™ Handheld users, for those who would like a getting started refresher and also for teachers wishing to transition from the TI-83 Plus and TI-84 Plus Silver Edition graphing calculators.

**1:30 p.m. - 2:30 p.m.**

**Location:** Convention Ctr.

**Room:** 120 C

Seats: 80

60-Minute Hands-On

ALGEBRA I

## 109 Okay, I Have TI-Nspire™ Handhelds and the TI-Nspire™ Navigator™ System. Now What?

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Marti Hoyt, marti\_hoyt@kernhigh.org, Independence High School, Bakersfield, CA, USA

Learn quick tips and troubleshooting keystrokes to always be two steps ahead of your students while utilizing some of the most powerful features of the TI-Nspire™ Navigator™ System. This session is for teachers who are somewhat familiar with TI-Nspire™ CX Handhelds but are new to the TI-Nspire™ Navigator™ System and its advantages in the classroom.

**1:30 p.m. - 2:30 p.m.**

**Location:** Convention Ctr.

**Room:** 121 A

Seats: 80

60-Minute Hands-On

ALGEBRA I

## 110 Students Energize Class by Bringing Their World Into It

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Sandra Hocutt, shocutt@ti.com, Allen, TX, USA

Allow your students to make the math content relevant to their world by importing their JPEG images into the TI-Nspire™ Handheld.

**1:30 p.m. - 2:30 p.m.**

**Location:** Convention Ctr.

**Room:** 121 B

Seats: 80

60-Minute Hands-On

GEOMETRY

## 111 Nspired Constructions

TI-Nspire™ CX CAS Handheld

Stephen West, west@geneseo.edu, Livonia, NY, USA

The topic of compass and straightedge constructions in the high school curriculum has often been relegated to the nine basic Euclidean constructions with little connection to the remainder of the curriculum. In this session we will use the TI-Nspire™ CAS Handheld as our Euclidean tools and focus on more advanced constructions which emphasize the problem solving side of the topic.

1:30 p.m. - 2:30 p.m.

Location: Convention Ctr.

Room: 121 C

Seats: 60

60-Minute Hands-On

GEOMETRY

## 112 Statistical Illumination

Allan Rossman, California Polytechnic State University, San Luis Obispo, CA, USA

A well-known, but very regrettable, saying asserts that *most people use statistics as a drunk uses a lamppost — more for support than for illumination*. This presentation will provide many examples that aim to help students discover that statistics can be used to cast light on many interesting and important questions and issues. Very simple statistical tools (proportions, averages, graphs) will be used to gain genuine insights into real-world phenomena, some involving issues of discrimination and other concerning life-and-death dilemmas.

1:30 p.m. - 2:30 p.m.

Location: Convention Ctr.

Room: 122 A

Seats: 60

60-Minute Lecture/Demonstration

STATISTICS

## 113 Changing Opportunities, Changing Lives with the TI MathForward™ Program

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Alicia Page, aliciabrookepage@gmail.com, Crossville, TN, USA

Co-Presenter: Tonya Hancock

Learn about the eight research-based components in the TI MathForward™ Program designed to function as a system to eliminate the achievement gap. Attendees will actively participate in a discussion of the design and its relation to improving schools from within using best practice strategies. Special attention will be given to the role of formative assessment and the implementation of technology to meet the unique instructional needs of a diverse student population. Struggling students? ELL? Special Needs? Already proficient? No problem! Data on the effectiveness of the program will be shared. The results of the project will be shared and a discussion about systemic reform will be facilitated. Best of all, participate in a hands-on exercise of a TI-MathForward™ activity with the TI-Nspire™ Handheld.

1:30 p.m. - 2:30 p.m.

Location: Convention Ctr.

Room: 122 B

Seats: 160

60-Minute Hands-On

ADMINISTRATOR

## 114 Activity-based Regression Analysis Using the TI-84 Plus Silver Edition Graphing Calculator

TI-84 Plus Silver Edition Graphing Calculator

Cory Cloud, pcc02c@fsu.edu, Florida High School, Tallahassee, FL, USA

This session gives hands on regression based activities to use in the algebra classroom. These activities link algebra to statistics and allow for students to explore ideas of linear and non-linear relationships. This session is hands-on and will demonstrate an approach to using calculator based statistical analysis in determining non-linear relationships.

1:30 p.m. - 2:30 p.m.

Location: Convention Ctr.

Room: 123

Seats: 80

60-Minute Hands-On

ALGEBRA II

## 115 Investigating Function Transformations on the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Hugh Daniels, hdaniels@live.com, Yelm High School, Yelm, WA, USA

This student activity allows students to investigate transformations of various types of functions. Students use sliders to notice the patterns of each individual transformation and then compare and contrast graphs that are transformed in different ways. This activity gives students a great understanding of vertical and horizontal translations and vertical shrinks and stretches. This activity has been used in an Algebra II classroom to introduce basic transformations.

1:30 p.m. - 2:30 p.m.

Location: Convention Ctr.

Room: 124

Seats: 80

60-Minute Hands-On

ALGEBRA II



## 116 Teaching Conic Sections Using the TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld

David Scott, [dscott@udel.edu](mailto:dscott@udel.edu), Glasgow High School, Wilmington, DE, USA

Teachers will learn to use the new conic graphing abilities of the TI-Nspire™ CAS Handheld to help teach conic sections. I will also include other hands-on techniques for teaching this important mathematical idea.

**1:30 p.m. - 2:30 p.m.**

**Location:** Convention Ctr.

**Room:** 125

Seats: 80

60-Minute Hands-On

ALGEBRA II

## 117 Can't Afford Current Technology? Still Using a TI-83 Plus Graphing Calculator or TI-84 Plus Graphing Calculator? Get 200 Color Interactive Activities Free!

Tom Reardon, [tom@tomreardon.com](mailto:tom@tomreardon.com), Fitch High School/Youngstown State University, Poland, OH, USA

Obtain over 200 activities for Middle School, Algebra I & 2, Geometry, Trig, Precalculus and AP\* Calculus for FREE. Included with the activities are student worksheets and teacher notes in PDF. All of these activities can be played on the TI-Nspire™ Document Player (powered by TI-Nspire™ Technology) so you and your students can interact with them on a computer. Activities include: Exploring Exponents, Area Formulas, Domain & Range, Pythagorean Relationships, Sum of an Infinite Geometric Series, Diagonals of Quadrilaterals, Function or Not, The Unit Circle, Derivatives and Particle Motion. See how to use these creative and colorful activities to assist with tough-to-teach concepts.

**1:30 p.m. - 2:30 p.m.**

**Location:** Convention Ctr.

**Room:** 126 A

Seats: 180

60-Minute Lecture/Demonstration

GENERAL INTEREST

## 118 Modeling Exponential and Log Functions Using the TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Matthew Owens, [mowens@richland2.org](mailto:mowens@richland2.org), Spring Valley High School, Columbia, SC, USA

Participants will receive demonstrative instruction with the TI-Nspire™ CAS Handheld on exponential, logarithmic, and logistic modeling using regression and making predictions to integrate an aspect of modeling from Common Core Mathematical Practice. Activities will engage participants in real world meaningful math data and discourse and will introduce key commands that are essential to an instructional unit involving such functions. Participants will also be introduced to different assessments and documents available to increase rigor and problem-solving in Precalculus.

**1:30 p.m. - 2:30 p.m.**

**Location:** Convention Ctr.

**Room:** 126 B

Seats: 60

60-Minute Lecture/Demonstration

PRECALCULUS

## 119 Gathering Data and Modeling Functions Using the TI-84 Plus C Silver Edition Graphing Calculator

TI-84 Plus C Silver Edition Graphing Calculator

Diane Broberg, [dbroberg@allendalecolumbia.org](mailto:dbroberg@allendalecolumbia.org), Allendale Columbia School, Rochester, NY, USA

Collect data with hands-on activities, some using technology and some not. Then use the TI-84 Plus C Silver Edition Graphing Calculator to graph the data and model the function. A perfect way to connect mathematics to real-life activities. Extensions to the activities will be given.

**1:30 p.m. - 2:30 p.m.**

**Location:** Marriott

**Room:** Franklin 1

Seats: 60

60-Minute Hands-On

ALGEBRA II

## 120 TI-84 Plus C Silver Edition Graphing Calculators in the 8th Grade Math Curriculum

TI-84 Plus C Silver Edition Graphing Calculator

Fan Disher, [fan.disher@stpsb.org](mailto:fan.disher@stpsb.org), Mandeville High School, Mandeville, LA, USA

Common Core State Standards have moved many Algebra I skills down to the 8th grade and require more technology than currently incorporated. This session will explore the basic functions of the TI-84 Plus C Silver Edition Graphing Calculator on the Home Screen, Graph Screen and Table Screen that incorporate these CCSS.

**1:30 p.m. - 2:30 p.m.**

**Location:** Marriott

**Room:** Franklin 2

Seats: 60

60-Minute Hands-On

MIDDLE GRADES MATH



## 121 Data, Regression and Stats, Oh My! Clearing up Misconceptions While Integrating Statistics Throughout the Curriculum.

*TI-84 Plus Silver Edition Graphing Calculator*

*Todd Sikora, tsikora@d125.org, Adlai E. Stevenson High School, Lincolnshire, IL, USA*

*Co-Presenter: Steve Ikenn*

This session will provide ideas to help teachers integrate statistics across the curriculum. With the NCTM's focus on statistics, the presenters — experienced AP\* Statistics teachers — will share lessons and activities and clear up some common misconceptions in statistics.

**1:30 p.m. - 2:30 p.m.**

**Location: Marriott**

**Room: Franklin 4**

*Seats: 60*

*60-Minute Lecture/Demonstration*

STATISTICS

## 124 Texas Instruments Technology and the Common Core for Algebra and Geometry

*TI-84 Plus Silver Edition Graphing Calculator*

*Linda Apicella, lapicella@aol.com, Orange, CT, USA*

See how the apps for the TI-84 Plus Silver Edition Graphing Calculator and the TI-73 Explorer™ Graphing Calculator engage students in exploration and discovery as suggested in the common core. Several apps will be demonstrated. Collection activities presented and handouts available.

**1:30 p.m. - 2:30 p.m.**

**Location: Marriott**

**Room: Franklin 8**

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA I

## 125 Managing Different Graphing Calculators in the Classroom

*TI-Nspire™ CX Handheld, TI-84 Plus Silver Edition Graphing Calculator*

*Sheila Horstman, sheila.horstman@cmcss.net, Clarksville High School, Clarksville, TN, USA*

The session will focus on how to manage student use of different graphing calculators. I use the TI-84 Plus and the TI-Nspire™ handheld in the classroom at the same time each day. We focus on the similarities of both for management. Come learn some tips that might help you manage using both handhelds.

**1:30 p.m. - 2:30 p.m.**

**Location: Marriott**

**Room: Franklin 9**

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA II

## 126 Integrating Math, Science and Literacy in the Elementary Classroom

*TI-Nspire™ CX Handheld*

*Tami Plein, tplein@netzero.net, Great Prairie Area Education Agency, Burlington, IA, USA*

When teachers integrate content areas, students get double the learning! Science provides concrete examples of mathematical ideas and opportunities for writing and reading in context. In this session, participants will experience an inquiry lesson from a science unit over conservation of mass that uses writing frames and journaling. Basic data collection using the TI-Nspire™ handheld and Vernier® force sensor will be demonstrated.

**1:30 p.m. - 2:30 p.m.**

**Location: Marriott**

**Room: Franklin 10**

*Seats: 60*

*60-Minute Hands-On*

ELEMENTARY MATH

## 127 Dynamic Graphics Using Sliders with the TI-Nspire™ CAS Handheld

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Eduardo Basurto, basurtomat@hotmail.com, Mexico City, MEXICO*

Middle school students generally face the use and interpretation of parameters in polynomial functions, geometric locations and algebraic expressions. This fact leads to the need to distinguish between the parameters of other types of literals, such as variables or unknowns. Technological environments, such as TI-Nspire™ CAS Handhelds, that incorporate the possibility of dynamic graphics by the incorporation of sliders can improve the comprehension of the polysemy of literals allowing the development of a more general thought, giving the opportunity for students to appreciate the structure of mathematical objects such as families of functions.

**1:30 p.m. - 2:30 p.m.**

**Location: Marriott**

**Room: Franklin 11**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH

## 128 Make Connections and Reason Algebraically with the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Gloria Beswick, grbeswick@aol.com, Louisville, KY, USA

Understanding relationships between variables, expressing these relationships in multiple ways, and reasoning about connections between representations is essential to student success in algebra. Participants will collect data from several experiments, use the TI-Nspire™ handheld to represent the data in tables and graphs, and determine a mathematical model for the data. These representations will be compared both within an experiment and between experiments making connections and looking for similar patterns of change. Math talk and TI-Nspire™ Technology will be used as tools to help students transition from number sense to algebraic reasoning. Activities will emphasize the Standards for Mathematical Practice.

**1:30 p.m. - 2:30 p.m.**

**Location: Marriott**

**Room: Franklin 12**

Seats: 60

60-Minute Hands-On

MIDDLE GRADES MATH

## 129 Mobile Labs: Using Roving Technology Labs to Teach Math and Science in Middle School Classrooms

TI-Navigator™ Classroom Learning System, TI-84 Plus Silver Edition Graphing Calculator

Denise Johnson, johnsondt@wssu.edu, Winston-Salem State University, Winston-Salem, NC, USA

Co-Presenter: Graduate Students

This session will focus on using graphing calculators, the TI-Navigator™ system, and Vernier® probeware to integrate Common Core Math and Essential Science standards in middle school classrooms. Participants will learn how an urban school district collaborated with a neighboring university to develop informal learning opportunities for teachers and students. Information will be provided about the program success and well as demonstrations of sample activities that were used. Participants will also receive information about how to plan a similar program and ascertain funding to support it.

**1:30 p.m. - 2:30 p.m.**

**Location: Marriott**

**Room: Franklin 13**

Seats: 60

60-Minute Lecture/Demonstration

MIDDLE GRADES MATH

## 130 Advanced Problem Solving in Science with the TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld

C.W. Eaker, eaker@udallas.edu, University of Dallas, Carrollton, TX, USA

This session will be a hands-on session which will give participants an opportunity to solve interesting science problems using advanced features of the TI-Nspire™ CAS Handheld. Examples include van der Waal's gas problems, fish populations, gravitational acceleration and the speed of sound, hypothesis testing, and chemical equilibrium. The skills learned in this session will be applicable to solving a wide range of science (and math) problems.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 109 B**

Seats: 60

90-Minute Hands-On

GENERAL SCIENCE

## 131 Teaching the Statistics Strand in Common Core Using the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Sharon Bruce, sbrucetcbued@comcast.net, Colorado Springs Christian School, Colorado Springs, CO, USA

You will learn how to introduce your students to various Common Core statistical concepts with hands-on activities and then use the TI-Nspire™ handheld to make the statistics come alive. We will explore 1) multiple graphs of different data types; 2) measures of center and spread; 3) probability simulations; and 4) sampling methods and distributions.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 110 AB**

Seats: 40

90-Minute Hands-On

STATISTICS

## 132 Collecting and Analyzing Data Using the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld

Greg Williams, gbwilliams4@juno.com, Maury High School, Norfolk, VA, USA

We will collect data for Boyle's Law and Spring motion. Data analysis will be conducted on each set of data.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 111 B**

Seats: 60

90-Minute Hands-On

GENERAL SCIENCE

# Session Details

MARCH 8  
Friday

## 133 Nspired Mastery

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Doug Smeltz, dsmeltz1@hotmail.com, Westerville, OH, USA

I am in the process of creating documents that include programs that are used as followups to topics in mathematics but focused mostly on Algebra I. These Mastery tests allow a teacher to ensure the students have mastery level understanding of the lessons that we've investigated/taught and tested. Unlike summative testing which shows weaknesses, these test allow students to develop mastery by repeating the test until success occurs, i.e., Protest-> Investigation-> Discussion-> Practice-> Testing->Mastery Testing.

2:45 p.m. - 4:15 p.m.

Location: **Convention Ctr.**

Room: **112 A**

Seats: 40

90-Minute Hands-On

ASSESSMENT

## 134 Using NASA Data to Explore S-IC.3-5 of the Common Core State Standards Using the TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld, TI-84 Plus Silver Edition Graphing Calculator, TI-Nspire™ Lab Cradle

Curtis Brown, cbrown@ltf.co, Laying the Foundation, A Division of National Math and Science, Dallas, TX, USA

Model a decision-making process scientists at NASA perform using data from the International Space Station. The activity will focus on making inferences and justifying conclusions from sample surveys, experiments, and observational studies, which are a part of the statistics category of the CCSS. The CCSS appendices suggest this topic be included in the Algebra II and Mathematics III courses. This TI-Nspire™ lesson was co-developed by NASA and Laying the Foundation to address a topic that may be new to many teachers and students.

2:45 p.m. - 4:15 p.m.

Location: **Convention Ctr.**

Room: **112 B**

Seats: 40

90-Minute Hands-On

GENERAL MATH

## 135 Teaching Human Physiology Using the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld, TI-Nspire™ Lab Cradle

Judy Day, judy\_day@mac.com, NC State University, Raleigh, NC, USA

Co-Presenter: Louise Chapman

Learn how the use of Vernier® Software and physiology sensors with the TI-Nspire™ Handheld and TI-Nspire™ Lab Cradle can help students comprehend human physiology better. Activities with the hand-grip heart rate monitor, EKG sensor, blood pressure sensor, hand dynamometer, and O<sub>2</sub> sensor will be done. Learn how to analyze the graphs and make conclusions from your data.

2:45 p.m. - 4:15 p.m.

Location: **Convention Ctr.**

Room: **113 A**

Seats: 80

90-Minute Hands-On

BIOLOGY

## 136 Move Now From Cookbook To Inquiry

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Greg Dodd, gbdodd@gmail.com, George Washington High School, Charleston, WV, USA

Research shows that students learn science concepts best through exploration. Students also enjoy research dealing with substances with which they are familiar such as vinegar and baking soda. In this session, participants will learn strategies for teaching an inquiry-based activity called *What Makes Us Fizz?* Students will use probes to investigate the conditions that make vinegar and baking soda fizz. A discussion on best practices for implementing inquiry-based activities using technology follows the exploration.

2:45 p.m. - 4:15 p.m.

Location: **Convention Ctr.**

Room: **113 B**

Seats: 80

90-Minute Hands-On

CHEMISTRY

## 137 Nspiring Fun Physics Labs

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Linda Antinone, linda.antinone@sbcglobal.net, Paschal High School, Fort Worth, TX, USA

Use the TI-Nspire™ CAS Handheld to collect and analyze data for acceleration due to gravity, friction and energy. Explore the Vernier® DataQuest™ application and learn to use various features with force and motion sensors. Learn how to use the TI-Nspire™ Technology as your lab tool and how to share data between students. Ready to use labs will be provided.

2:45 p.m. - 4:15 p.m.

Location: **Convention Ctr.**

Room: **113 C**

Seats: 80

90-Minute Hands-On

PHYSICS

## 138 Parabolas, Ellipses & Hyperbolas: From Paper Folding to TI-Nspire™ Technology (and even iPad®)

TI-Nspire™ App for iPad®

Arthur Mabbott, art@mabbott.org, Seattle Schools, Woodinville, WA, USA

Come explore the Parabola, Ellipse and Hyperbola starting with paper folding each curve and then mirror the same moves on the TI-Nspire™ CAS Handheld and on the iPad®.

**2:45 p.m. - 4:15 p.m.**

**Location:** Convention Ctr.

**Room:** 114

Seats: 600

90-Minute Hands-On

PRECALCULUS

## 140 Exponential Functions with TI-Nspire™ CAS Handheld in Your Common Core Classes

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Michael Lutz, plutz@csu.edu, California State University – Bakersfield, Bakersfield, CA, USA

Explore exponential functions and transformational graphing from 9th grade through calculus, and from geometric sequences to population growth to experience multiple features of TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System. Beginners may be surprised at how much they will be able to do as we utilize Calculator, Lists & Spreadsheets, Data & Statistics, and Graphs pages. We will use the sequence command to generate data and scatterplots to analyze it.

**2:45 p.m. - 4:15 p.m.**

**Location:** Convention Ctr.

**Room:** 115 B

Seats: 80

90-Minute Hands-On

TECHNOLOGY

## 141 Aerodynamic Wind Tunnel in a School Hallway with the TI-Nspire™ CAS Handheld and TI-84 Plus Silver Edition Graphing Calculator

TI-Nspire™ CX CAS Handheld, TI-Navigator™ Classroom Learning System, TI-84 Plus Silver Edition Graphing Calculator

Jeffery Thompson, carsrpi@gmail.com, Ten80 Education, Charlotte, NC, USA

Co-Presenter: Michelle Bonds

There are two methods for evaluating aerodynamic drag: CFD using SolidWorks® software or testing a physical model. Ten80 has pioneered the use of school hallways as mini-Laurel Hill Tunnel Coast-Down test sites, an idea from Ben Bowlby when he was with Ganassi Racing. Simple in concept: Accelerate an RC car to top speed, release it and video tape it coasting to a stop. Video playback provides a time code at intervals of 1/30th of a second so graphs can be made of position as a function of time. Calculating coefficient of aerodynamic drag involves regression analyses, and solving several quadratic equations.

**2:45 p.m. - 4:15 p.m.**

**Location:** Convention Ctr.

**Room:** 115 C

Seats: 80

90-Minute Hands-On

TECHNOLOGY

## 142 Introduction to Writing Code to Program the TI-Nspire™ Family of Handhelds

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Becky Underwood, rebecca\_underwood@ncsd.k12.wy.us, Kelly Walsh High School, Casper, WY, USA

Co-Presenter: Becky Byer

Have you thought, I have new TI-Nspire™ CAS Handhelds in my classroom but I cannot run my TI-84 Plus Silver Edition Graphing Calculators — now what? Or, the TI-Nspire™ Features are awesome but sometimes an old program would still work the best. In this session you will learn how to rewrite your own programs for the TI-Nspire™ Technology and learn to implement its features into your programs. Past programming experience would be helpful but not required.

**2:45 p.m. - 4:15 p.m.**

**Location:** Convention Ctr.

**Room:** 116

Seats: 80

90-Minute Hands-On

PROGRAMMING

## 143 NASA and the TI-Nspire™ CAS Handheld: Activities for Your Calculus Classroom

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Ray Barton, bartonr7@comcast.net, Olympus High School, Salt Lake, UT, USA

TI-Nspire™ Activities that integrate problems and data from NASA mission specialists in areas including orbital mechanics, neuroscience and robotics.

**2:45 p.m. - 4:15 p.m.**

**Location:** Convention Ctr.

**Room:** 117

Seats: 80

90-Minute Hands-On

CALCULUS

## 144 Technology and the Common Core State Standards: Panel Discussion

Tom Dick, [tpdick@math.oregonstate.edu](mailto:tpdick@math.oregonstate.edu), Oregon State University, Corvallis, OR, USA

Co-Presenters: Deb Hughes-Hallett, Gail Burrill

This panel/audience discussion presents a range of perspectives on the impact and implications of the widely adopted Common Core State Standards (CCSS) for both mathematical content and practices, especially the role technology can play in implementation and assessment of the mathematical practice standards designed to help students: make sense of problems and persevere in solving them; reason abstractly and quantitatively; construct viable arguments and critique the reasoning of others; model with mathematics; use appropriate tools strategically; attend to precision; look for and make use of structure; and look for and express regularity in repeated reasoning.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 118 A**

Seats: 80

90-Minute Lecture/Demonstration

GENERAL MATH

## 145 Getting to the Common Core with the TI-Nspire™ Handheld (Part 1)

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Veronica Carlson, [veronica.carlson@guhsdaz.org](mailto:veronica.carlson@guhsdaz.org), Moon Valley High School, Phoenix, AZ, USA

Co-Presenter: Kim Thomas

Participants will explore TI-Nspire™ Handheld applications to understand how technology deepens understanding of math concepts. Discover how all eight mathematical practices are naturally integrated into the math classroom. Participants will leave with ready-to-use and ready-to-access lessons. This presentation will benefit beginners.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 118 B**

Seats: 80

90-Minute Hands-On

GENERAL MATH

## 146 TI-Nspire™ CAS Handheld: Cure for the Common Core

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Marian Prince, [marian.prince50@gmail.com](mailto:marian.prince50@gmail.com), Andrews University, Sawyer, MI, USA

Are you and your students ready for the coming 2015 assessment for the Common Core? The TI-Nspire™ CAS Handheld and the TI-Nspire™ Navigator™ System can help. See how they support your instruction in developing the Mathematical Practices in your students. Middle school and high school activities will be explored and discussed. Beginners are welcome.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 118 C**

Seats: 80

90-Minute Hands-On

GENERAL MATH

## 147 Creating Powerful Learning Tools with the TI-Nspire™ Navigator™ NC System

TI-Nspire™ Navigator™ NC System

Steve Arnold, [smarnold@me.com](mailto:smarnold@me.com), Kiama Downs, AUSTRALIA

The range of ways in which teachers may create their own powerful learning tools with the TI-Nspire™ Navigator™ NC System has grown in the past year or so. It has become so much easier to build interactive documents using both the native tools especially Graphs & Geometry and Notes, as well as the amazing opportunities offered by Lua. Whether you are a beginner or an experienced user, come along and learn new things.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 119 A**

Seats: 60

90-Minute Hands-On

AUTHORING

## 150 There's an App for That: Problem Solving in Algebra I Using the TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

David Reeves, [dreeves@sanjuan.edu](mailto:dreeves@sanjuan.edu), Andrew Carnegie Middle School, Orangevale, CA, USA

Co-Presenter: Kyle Atkin

In this session for users new to the TI-Nspire™ CAS Handheld, we will investigate how to effectively use it to facilitate problem solving in first-year Algebra. Using the built-in applications, we will explore solving problems using a multiple representation approach. Participants will be introduced to using the calculator, graphs, geometry, lists & spreadsheet, and the data & statistics applications in the context of a rich problem or problems. The session is designed to be directed by the participants, encouraging a *what if?* and *let's try it!* approach.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 120 B**

Seats: 80

90-Minute Hands-On

ALGEBRA I



## 151 Introduction to Data Collection for Algebra Classes Using Vernier® Temperature Probes and CBR 2™ Motion Detectors

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Katie Allard-Martinez, ksallard20@yahoo.com, Canyon Crest Academy, Encinitas, CA, USA

Learn how to quickly and accurately collect data for Algebra I and Algebra II classes using Vernier® Temperature Probes and CBR 2™ Motion Detectors. Collect linear and exponential data, find appropriate models for the data and use the models to solve other math problems.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 120 C**

Seats: 80

90-Minute Hands-On

ALGEBRA I

## 152 Quick Poll with the TI-Nspire™ Navigator™ System is not Just for Formative Assessments (Reprise)

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Doug Roberts, droberts@wideopenwest.com, Hilliard, OH, USA

We will see how you can use the TI-Nspire™ Navigator™ System Quick Poll feature to do other things than formative assessment questions. We will also show how the TI-Nspire™ Navigator™ System grades steps of student work and the many features of the activity center that are now available.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 121 A**

Seats: 80

90-Minute Hands-On

ALGEBRA I

## 153 Developing Geometry with the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Kathy Hale, khale@esc14.net, Abilene, TX, USA

Help students understand attributes of shapes and other critical relationship using TI-Nspire™ Handheld. This beginner session will give you tools to begin the process.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 121 B**

Seats: 80

90-Minute Hands-On

GEOMETRY

## 154 Geometry, Transformations and TI-Nspire™ Technology: Making CCSS a Reality in Our Classrooms

Wade Ellis, wellis@ti.com, West Valley Community College, Saratoga, CA, USA

Co-Presenter: Gail Burrill

Understand congruence in terms of rigid motions and similarity in terms of similarity transformations (CCSS). Can we use transformations to prove that all parabolas are similar? To prove the Pythagorean Theorem — or properties of quadrilaterals? What is the relationship between traditional Euclidean plane geometry and the geometry advocated by the CCSS? How does what we teach and the tasks we give have to shift? And how can TI-Nspire™ Technology make these concepts accessible and understandable for students?

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 121 C**

Seats: 60

90-Minute Lecture/Demonstration

GEOMETRY

## 155 Designing Monte Carlo Simulations Using the TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld

Natalie Jakucyn, njakucyn@glenbrook225.org, Glenbrook South High School, Chicago, IL, USA

Co-Presenter: Ken Kerr

We will design Monte Carlo simulations to explore some neat applications like the sum of two fair six-sided dice, the probability of having blue-eyed babies, when an airplane is likely overbooked and predicting a baseball hitting streak.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 122 A**

Seats: 60

90-Minute Hands-On

STATISTICS

## 156 Transitioning from the TI-84 Plus Silver Edition Graphing Calculator to the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System, TI-84 Plus Silver Edition Graphing Calculator

William Caroscio, bcaroscio@gmail.com, Elmira, NY, USA

But I love my TI 84 Plus Silver Edition Graphing Calculator! Why change? What are some of the common features and how are they implemented on the TI-Nspire™ Handheld? Once the change is made, you will never go back. Come and explore.

**2:45 p.m. - 4:15 p.m.**

**Location: Convention Ctr.**

**Room: 122 B**

Seats: 160

90-Minute Hands-On

GENERAL INTEREST



## 157 Beautiful Pictures of Lake Havasu Balloonfest Provide Modeling Opportunities: Be Inspired to Create Mathematical Models

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Sharon Dailey, sdailey@unitelc.com, Park Rapids High School, Park Rapids, MN, USA

This hands-on session will use documents with inserted pictures to enhance student interest, and promote understanding of mathematics concepts and student engagement in creating mathematical models. The new TI-Nspire™ CAS Handheld simplifies the conic models. TI-Nspire™ Navigator™ Teacher Software will demonstrate how to insert pictures when preparing documents for use in the classroom. Feel free to bring a jump drive along to obtain a copy of pictures or documents used in this session.

2:45 p.m. - 4:15 p.m.

Location: Convention Ctr.

Room: 123

Seats: 80

90-Minute Hands-On

ALGEBRA II

## 158 We Are Family: A TI-Nspire™ Handheld Exploration of the Function Families

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Elizabeth Pugliese, elizabeth.pugliese@vbschools.com, Frank W. Cox High School, Virginia Beach, VA, USA

Using the TI-Nspire™ Handheld and TI-Nspire™ Navigator™ System, we will: analyze and categorize families of functions; investigate and generalize the effects of a, h, and k on a given function; and describe transformations to a parent function. We will also create sliders for developing similar lessons. For this session, parent functions will include absolute value, quadratic, square root, exponential, logarithmic, cubic and periodic functions.

2:45 p.m. - 4:15 p.m.

Location: Convention Ctr.

Room: 124

Seats: 80

90-Minute Hands-On

ALGEBRA II

## 159 Algebra II, Common Core State Standards and TI-Nspire™ Handheld

TI-Nspire™ CX Handheld

Ann Davidian, davidian3@aol.com, Syosset, NY, USA

The Common Core State Standards for Mathematics stress deeper understanding and modeling. When students are truly involved in a lesson, they form a deeper understanding of the material. The TI-Nspire™ Handheld dynamically linked representations provide students with graphical, numerical, algebraic and verbal representations of a problem. Utilize the Rule of Four to incorporate real life applications of Algebra into your classes. Learn about materials that are available from [education.ti.com](http://education.ti.com). Receive activities to take home and use with your classes.

2:45 p.m. - 4:15 p.m.

Location: Convention Ctr.

Room: 125

Seats: 80

90-Minute Hands-On

ALGEBRA II

## 160 The TI MathForward™ Program: What's This All About?

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Gina Allred, rallred@ti.com, Franklinville, NC, USA

The TI MathForward™ Program is a comprehensive plan designed for Algebra readiness. We will discuss the eight components needed for success and see the technology used to create this successful classroom experience.

2:45 p.m. - 4:15 p.m.

Location: Convention Ctr.

Room: 126 A

Seats: 180

90-Minute Hands-On

GENERAL INTEREST

## 161 F<sup>4</sup>: Four Favorite Fabulous Functions

TI-Nspire™ CX Handheld

Robin Levine-Wissing, rlevine-wissing@glenbrook225.org, Glenbrook North High School, Northbrook, IL, USA

This hands-on TI-Nspire™ Handheld session will focus on actual classroom activities used in Algebra II and Precalculus classes. Teachers will leave with four classroom ready lessons to use.

2:45 p.m. - 4:15 p.m.

Location: Convention Ctr.

Room: 126 B

Seats: 60

90-Minute Hands-On

PRECALCULUS

## 162 Using the TI-84 Plus C Silver Edition Graphing Calculator to Connect Functions and the Real World

*TI-84 Plus Silver Edition Graphing Calculator*

Gloria Barrett, barrett@ncssm.edu, North Carolina School of Science and Mathematics, Pittsboro, NC, USA

Activities requiring students to find functions to approximate real-world data are effective in helping students develop appreciation for the various functions they study throughout the secondary curriculum. In this session we will use a variety of techniques to find models for bivariate data, including free-hand fits based on transformations of toolkit functions and the built-in curve fitting functionality available on the TI-84 Plus Silver Edition Graphing Calculator.

**2:45 p.m. - 4:15 p.m.**

**Location: Marriott**

**Room: Franklin 1**

Seats: 60

90-Minute Hands-On

PRECALCULUS

## 163 A Nutty Connection of Math and Science Using the TI-84 Plus C Silver Edition Graphing Calculator

*TI-84 Plus C Silver Edition Graphing Calculator*

Mary Beth Murrell, marybethmurrell@gmail.com, Great Prairie Area Education Agency, Burlington, IA, USA

Co-Presenter: Tami Plein

It's a win-win! The screw is a simple machine in science that we will use to engage in the mathematical ideas of slope, intercept, and direct variation at a concrete level to enhance our understanding of those concepts in relation to the screw. By recognizing patterns, quantifying and modeling the relationships mathematically, we provide students the opportunity to transfer their learning between math and science, deepening their understandings in both subjects. The Standards for Mathematical Practices in the Common Core Standards will be addressed.

**2:45 p.m. - 4:15 p.m.**

**Location: Marriott**

**Room: Franklin 2**

Seats: 60

90-Minute Hands-On

GENERAL INTEREST

## 164 What Else can my TI-84 Plus Silver Edition Graphing Calculator Do? Advanced Features for Teaching High School Math.

*TI-Navigator™ Classroom Learning System, TI-84 Plus Silver Edition Graphing Calculator*

Irina Lyublinskaya, irina.lyublinskaya@gmail.com, CUNY College of Staten Island, Staten Island, NY, USA

Come to explore some advanced features of your TI-84 Plus Silver Edition Graphing Calculator: saving favorite windows, creating recursive sequences, drawing objects, graphing in polar and parametric, working with complex numbers and more.

**2:45 p.m. - 4:15 p.m.**

**Location: Marriott**

**Room: Franklin 4**

Seats: 60

90-Minute Hands-On

TECHNOLOGY

## 167 Pinky Pig and Farmer Faye Use the TI-84 Plus Silver Edition Graphing Calculator to Explore Quadratic Functions

*TI-84 Plus Silver Edition Graphing Calculator*

Becky Caison, rbcaison@mac.com, University of NC Greensboro, Mebane, NC, USA

Farmer Faye will use the TI-84 Plus Silver Edition Graphing Calculator to assist in deciding on the best time to sell Pinky Pig while exploring quadratic functions using multiple representations.

**2:45 p.m. - 4:15 p.m.**

**Location: Marriott**

**Room: Franklin 8**

Seats: 60

90-Minute Hands-On

ALGEBRA I

## 168 Facing Common Core with the TI-84 Plus Silver Edition Graphing Calculator

*TI-84 Plus Silver Edition Graphing Calculator*

Debbie Poss, deborah.poss@cobbk12.org, Lassiter High School, Marietta, GA, USA

Co-Presenter: Don Slater

We will present several activities from quadratics, exponentials, etc. that not only address the Common Core State Standards, but also address the eight Standards for Mathematical Practice.

**2:45 p.m. - 4:15 p.m.**

**Location: Marriott**

**Room: Franklin 9**

Seats: 60

90-Minute Hands-On

ALGEBRA II

# Session Details

MARCH 8  
Friday

## 169 STEM + Elementary = Nspire

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Marsha Burkholder, [teamburk@yahoo.com](mailto:teamburk@yahoo.com), West Broad Elementary, Columbus, OH, USA

This session will be a hands on session using the TI-Nspire™ Handheld with the temperature probe and motion detector. The focus will be on how elementary students in a STEM school use the technology to explore science topics. Participants will explore how students can use this equipment to understand elementary topics.

**2:45 p.m. - 4:15 p.m.**

**Location: Marriott**

**Room: Franklin 10**

Seats: 60

90-Minute Hands-On

ELEMENTARY MATH

## 170 Connect Your Middle School Students to the Math Using TI-Nspire™ CAS Handhelds and the TI-Nspire™ Navigator™ System

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Karen Cockburn, [kcockburn@ti.com](mailto:kcockburn@ti.com), Spokane Valley, WA, USA

How does the TI-Nspire™ Navigator™ System help middle school students engage, explore and experience mathematics? This is for beginners. Come experience what Middle School students are doing in their classrooms with this technology.

**2:45 p.m. - 4:15 p.m.**

**Location: Marriott**

**Room: Franklin 11**

Seats: 60

90-Minute Hands-On

MIDDLE GRADES MATH

## 171 The TI-Nspire™ Handheld for Middle School Mathematics (Including 6th Grade)

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Patsy Fagan, [patsy@pfagan.com](mailto:patsy@pfagan.com), Des Moines, IA, USA

Middle school students enjoy learning mathematics especially when using TI-Nspire™ Handhelds and the TI-Nspire™ Navigator™ System. Activities that engage 6th – 8th grade students will be given. No prior experience needed.

**2:45 p.m. - 4:15 p.m.**

**Location: Marriott**

**Room: Franklin 12**

Seats: 60

90-Minute Hands-On

MIDDLE GRADES MATH

## 174 Go Paperless with TI-Nspire™ Navigator™ System and More!

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Sarah Bauguss, [sarahbauguss@katyisd.org](mailto:sarahbauguss@katyisd.org), Morton Ranch Junior High, Katy, TX, USA

Do you have technology hanging around your room collecting dust? Not sure how to use it to its fullest potential? Come experience how the TI-Nspire™ Navigator™ System and various Web 2.0 tools can help increase student engagement and collaboration, and teacher efficiency — and help you go paperless. Bring your own phone, tablet, computer or other device to connect with Web 2.0 activities.

**4:30 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 110 AB**

Seats: 40

60-Minute Hands-On

TECHNOLOGY

## 175 Parts Per Million: Exploring Concentration with Three Different Vernier® Sensors and the TI-Nspire™ Lab Cradle

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle

Suzanne Tucker, [stucker@madeiracityschools.org](mailto:stucker@madeiracityschools.org), Madeira High School, Madeira, OH, USA

Problems that affect the earth are coming to us in smaller packages as we wrestle with concentrations on the scale of parts per million. This lab takes students through a standard serial dilution and then uses pH, conductivity, and colorimetry to explore how these chemical properties change as the solution is diluted. This lab serves as an introduction to TI-Nspire™ CX Handheld early in the year while building a foundation to conduct pollution, toxicity, and salinity labs. Designed for environmental science, this lab could be adapted to study concepts in general science, chemistry, biology or even world issues.

**4:30 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 111 B**

Seats: 60

60-Minute Hands-On

GENERAL SCIENCE

## 177 Investigating Functions with Transformations Using the TI-Nspire™ Handheld and the TI-84 Plus Silver Edition Graphing Calculator

*TI-Nspire™ CX Handheld, TI-84 Plus Silver Edition Graphing Calculator*

*Charla Holzbog, cholzbog@ltf.co, Laying the Foundation, A Division of National Math and Science, Dallas, TX, USA*

Discover strategies for teaching transformations with side-by-side presentations on both the TI-Nspire™ Handheld and the TI-84 Plus Silver Edition Graphing Calculator. Using the Laying the Foundation lesson *Investigating Functions*, participants will examine strategies to guide students in the explorations of function transformations presented in multiple modalities. Several Common Core State Standards of Mathematical Content and Practice will be addressed in the activity.

**4:30 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 112 B**

*Seats: 40*

*60-Minute Hands-On*

GENERAL MATH

## 178 Marine Science Investigations

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Scott Hurley, scott.hurley@stlucieschools.org, Fort Pierce Westwood Marine and Oceanographic Academy, Fort Pierce, FL, USA*

Marine Science Investigations of the Indian River Lagoon utilizing the TI-Nspire™ Handheld and Vernier® probes.

**4:30 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 113 A**

*Seats: 80*

*60-Minute Hands-On*

BIOLOGY

## 180 Quick Labs

*TI-Nspire™ CX CAS Handheld, TI-84 Plus Silver Edition Graphing Calculator, TI-Nspire™ Lab Cradle*

*Tom Cauffield, tcauffield@att.net, Jupiter, FL, USA*

*Co-Presenter: Tom Green*

Middle school labs that help reinforce science lessons using TI-84 Plus Silver Edition Graphing Calculator and TI-Nspire™ CAS Handheld with data collection apps.

**4:30 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 113 C**

*Seats: 80*

*60-Minute Hands-On*

MIDDLE GRADES SCIENCE

## 181 Using the iPad®, Digital Content and Apps to Deepen Students' Understanding of and Appreciation for Mathematics

*TI-Nspire™ App for iPad®*

*Ron Lancaster, ron2718@nas.net, University of Toronto, Hamilton, ON, CANADA*

We will examine ways of using the iPad® and apps to access photographs, videos, newspaper articles and other digital content that can be used as the basis of engaging mathematical questions for students. These questions will enable mathematics teachers to connect the curriculum with the world in a meaningful and artistic manner. A benefit for students is they become accustomed to seeing and thinking deeply about mathematics everywhere.

**4:30 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 114**

*Seats: 600*

*60-Minute Lecture/Demonstration*

GENERAL INTEREST

## 183 The Three Rs: Rigor, Relevance and Rates: Changing Reactions in Science and Math Applications

*TI-Nspire™ CX Handheld, TI-Nspire™ Lab Cradle*

*Darlene Villafranca, dvillafranca@esc1.net, Laredo, TX, USA*

*Co-Presenter: Laura Link*

Using science experiments in life science, chemistry and physics connects students' understanding of abstract Algebra concepts in real-world applications. These hands-on activities are rigorous and relevant that connects mathematics with science in a way that is accessible to teachers and students alike. Each activity explores a scientific phenomenon and connects it to Algebra concepts.

**4:30 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 115 B**

*Seats: 80*

*60-Minute Hands-On*

TECHNOLOGY

## 186 Explore New Ways to Engage and Excite Students with Discussion and Exploration of Graphing Functions with the TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Eduardo Briceño, MEXICO

The activities carried out in this workshop are viable in mathematics classes on graphing functions. In the development of activities emerge reflections, arguments and justifications on the use of mathematical graphs. Through modeling the motion of an object, you create an environment for discussion and reflection for students to build knowledge of graphic patterns and behaviors. The purpose of the experiment is to provide a redefinition of parameters of the function  $f(x) = Ax^2 + Cx > 0$  by using the graph.

4:30 p.m. - 5:30 p.m.

Location: Convention Ctr.

Room: 117

Seats: 80

60-Minute Hands-On

CALCULUS

## 188 Empowering Students in the Math Class Using the TI-Nspire™ Navigator™ System

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Kathryn Behling, kbehling@charlestonmathscience.org, Charleston Charter School for Math and Science, Charleston, SC, USA

In this session you will see firsthand how the TI-Nspire™ Handheld and the TI-Nspire™ Navigator™ System are used to engage students in the math classroom. You will experience different ways you can assess students learning in a fun way and get a glimpse into some of the activities that can be used for all levels of math. If you have very little experience with the calculator or the TI-Nspire™ Navigator™ System, this is the session for you.

4:30 p.m. - 5:30 p.m.

Location: Convention Ctr.

Room: 118 B

Seats: 80

60-Minute Hands-On

GENERAL MATH

## 190 Field Trip Magic and Scavenger Hunts: Using the TI-Nspire™ Handheld and the TI-Nspire™ Navigator™ System to Keep Students Engaged

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Carrie Wilson, cwilson@tfssa.org, The Fulton School of St. Albans, St. Albans, MO, USA

Innovative ways to use digital media, Vernier® Probeware and a lot of creativity to get students actively engaged in their learning experience. We will examine how to download digital photographs taken during field trips and approximate equations to best describe the images collected. We will see how a digital scavenger hunt is made easy with TI-Nspire™ Navigator™ System. We will look at how environmental data can be collected and organized while taking a walk around our school grounds. This presentation is suitable for Middle to High School teachers in both Science and Math classes.

4:30 p.m. - 5:30 p.m.

Location: Convention Ctr.

Room: 119 A

Seats: 60

60-Minute Hands-On

ADMINISTRATOR

## 191 How to Use the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature in the Classroom

TI-Nspire™ Navigator™ NC System

Jess Kachur, jessicakachur@yahoo.com, Franksville, WI, USA

In this session we will discuss the TI-Nspire™ Navigator™ System and the TI-Nspire™ PublishView™ Feature. We will look at how to create documents for our students to use and how to have students use the PublishView™ Feature to create presentations.

4:30 p.m. - 5:30 p.m.

Location: Convention Ctr.

Room: 119 B

Seats: 60

60-Minute Hands-On

GENERAL MATH

## 193 Ready to Use Activities to Nspire Your Students

TI-Nspire™ CX Handheld

Della Highman, dellahighman@hotmail.com, Franklin Heights High School, Columbus, OH, USA

Co-Presenter: Kari Craddock

Come and see how you can use M&M's® and basketball to get your students more involved in learning math. In this session you will become familiar with various pages on the TI-Nspire™ Handheld as Lists & Spreadsheets and Data & Statistics. You will also create box and scatter plots and use the regression feature as you work through engaging activities you can take back to your students.

4:30 p.m. - 5:30 p.m.

Location: Convention Ctr.

Room: 120 B

Seats: 80

60-Minute Hands-On

ALGEBRA I



## 194 Holy Shift! Shifting your Algebra Instructional Style.

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Lindsay Miller, lindsay.miller@lowndes.k12.ms.us, New Hope High School, Columbus, MS, USA

Co-Presenter: Kelly Soule

In this session, participants will consider several TI-Nspire™ Handheld activities that can be used during instruction to guide students to a meaningful and greater understanding of algebraic topics.

4:30 p.m. - 5:30 p.m.

Location: Convention Ctr.

Room: 120 C

Seats: 80

60-Minute Hands-On

ALGEBRA I

## 195 The TI-Nspire™ Navigator™ System in Your Classroom: How Can it Benefit You and Your Students?

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Scott Montgomery, teachem72@yahoo.com, Morton Freshman Center, Cicero, IL, USA

Co-Presenter: Ben Dobes

Become accustomed to some of the useful and beneficial characteristics of the TI-Nspire™ Navigator™ System in your classroom. See how it can help improve student achievement and increase student motivation through engaging lessons, formative assessments and data analysis.

4:30 p.m. - 5:30 p.m.

Location: Convention Ctr.

Room: 121 A

Seats: 80

60-Minute Lecture/Demonstration

ALGEBRA I

## 196 Proof by Counterexample for Geometry Students Using the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld

Lisa Phillips, lphillli@fsu.edu, Florida State University School, Tallahassee, FL, USA

Participants will use the TI-Nspire™ Handheld to disprove SSA and AAA cases through the use of counterexamples. Participants will receive student worksheets that will guide them through the process. This session is geared towards beginning and intermediate users.

4:30 p.m. - 5:30 p.m.

Location: Convention Ctr.

Room: 121 B

Seats: 80

60-Minute Hands-On

GEOMETRY

## 197 Introduction to Drawing Shapes and Constructions

TI-Nspire™ CX Handheld

Melissa Churchill, melissa.churchill@carrollcountyschools.com, Temple High School, Temple, GA, USA

Co-Presenter: Kerry Burross

This session is designed to familiarize the user with the different constructions needed for various geometric purposes such as midpoints, arcs, angles, bisectors, circles, polygons, lines, segments, transformations and congruencies. The user will also explore various measurements such as length, area, slope and angle. Participants will receive a lesson to use with their students as an activating and/or introductory lesson to familiarize the students to the handheld skills needed during a geometry lesson. The main purpose of this class is to familiarize the user with the location and function of the menu options while in a geometry page.

4:30 p.m. - 5:30 p.m.

Location: Convention Ctr.

Room: 121 C

Seats: 60

60-Minute Hands-On

GEOMETRY

## 198 Nspired Statistics: Using the TI-Nspire™ CAS Handheld for the First Time in AP\* Statistics

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Steve Phelps, sphelps@madeiracitieschools.org, Madeira High School, Cincinnati, OH, USA

Are you thinking of using TI-Nspire™ Technology for the first time in AP\* Statistics? Have you been using the TI-83 Plus or TI-84 Plus Silver Edition graphing calculator and are just not sure how to do statistics on the TI-Nspire™ CAS Handheld? This session is for you! Come and learn how you can easily transition to the Nspire. See how easy it is to create different types of plots, or to perform simulations, or to construct confidence intervals, or to perform hypothesis tests. The TI-Nspire™ CAS has been fine-tuned for AP\* Statistics. If you are not yet convinced, you will be after this session.

4:30 p.m. - 5:30 p.m.

Location: Convention Ctr.

Room: 122 A

Seats: 60

60-Minute Hands-On

STATISTICS



## 202 Colorful Conics on the TI-Nspire™ CX CAS Handheld

TI-Nspire™ CX Handheld

Raymond Rozen, rar@rmit.edu.au, RMIT University, Melbourne, AUSTRALIA

In this hands-on session, participants will have the opportunity to engage in a number of mathematical activities using geometry with the TI-Nspire™ CX CAS Handheld. Activities include creating a locus of points for parabolas, ellipses and hyperbolae and plotting parametric graphs and some of the new features of the TI-Nspire™ CX CAS Handheld.

4:30 p.m. - 5:30 p.m.

Location: **Convention Ctr.**

Room: **125**

Seats: 80

60-Minute Hands-On

ALGEBRA II

## 203 Setup, Install and First Day Use of the TI-Nspire™ Navigator™ System

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Joseph Rodriguez, josephrodriguez@ti.com, Dallas, TX, USA

Co-Presenter: Keith Sargent

New to the TI-Nspire™ Navigator™ System? Still trying to get the basics down? What do you do if you run into trouble? The TI-CARES™ team will first cover installation of the software as well as configuration of network manager and class rosters. The second item covered will be the association of the handhelds and placement of the TI-Nspire™ Navigator™ Access Point. Finally, we will go over first day use of the product, covering items such as quick poll, live presenter and class capture.

4:30 p.m. - 5:30 p.m.

Location: **Convention Ctr.**

Room: **126 A**

Seats: 180

60-Minute Lecture/Demonstration

GENERAL INTEREST

## 204 Creating Polar Flowers on the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Joy Brokes, jbrokes@gmail.com, Whippany, NJ, USA

Participants will create flowers using polar equations. The goal is to make your flower as real looking as possible. Students will learn how to use only part of a curve, when desired. This session presents an enjoyable way for students to learn about the properties of polar equations.

4:30 p.m. - 5:30 p.m.

Location: **Convention Ctr.**

Room: **126 B**

Seats: 60

60-Minute Hands-On

PRECALCULUS

## 205 TI-84 Plus C Silver Edition Graphing Calculator: Bright, Hi-Res Color and so much more

TI-84 Plus C Silver Edition Graphing Calculator

Margo Mankus, margo.mankus@ti.com, Beacon, NY, USA

Color graphs, color Image Vars, and more MathPrint™ Feature areas. Come see the new enhancements to your favorite TI-84 Plus Silver Edition Graphing Calculator — now with C for bright, high-res color. Learn about about QuickPlot&Fit-EQ! TI-SmartView™ Emulator Software and TI Connect™ Software for TI-84 Plus C Silver Edition Graphing Calculator will also be demonstrated.

4:30 p.m. - 5:30 p.m.

Location: **Marriott**

Room: **Franklin 1**

Seats: 60

60-Minute Hands-On

ALGEBRA I

## 206 Fish Tales: Mathematical Modeling with the TI-84 Plus C Silver Edition Graphing Calculator

TI-84 Plus C Silver Edition Graphing Calculator

Elizabeth Gasque, Charleston, SC, USA

The Common Core State Standards for Mathematics include an emphasis on mathematical modeling. Data modeling activities can provide opportunities for students to develop and interpret functions in real contexts. In this session, we'll explore data collected by scientists who sample fish populations to evaluate the condition and status of populations and to estimate growth and mortality rates. The TI-84 Plus and TI-84 Plus C Silver Edition graphing calculators will be used to graph data, fit models, and investigate trends for salmon, trout, red drum and largemouth bass.

4:30 p.m. - 5:30 p.m.

Location: **Marriott**

Room: **Franklin 2**

Seats: 60

60-Minute Hands-On

ALGEBRA I

## 207 Parametric Representation on the TI-84 Plus Silver Edition Graphing Calculator

*TI-84 Plus Silver Edition Graphing Calculator*

*Richard Parr, rparr@rice.edu, Rice University, Houston, TX, USA*

Use the TI-84 Plus Silver Edition Graphing Calculator to explore the use of parametric representations that help students make connections and improve understanding of important function concepts in second-year Algebra and Precalculus.

**4:30 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 4**

*Seats: 60*

*60-Minute Lecture/Demonstration*

PRECALCULUS

## 210 Helping Struggling Algebra Students with the TI-84 Plus Silver Edition Graphing Calculator and SMART Notebook™

*TI-84 Plus Silver Edition Graphing Calculator*

*Sonja Barrera, my3sonskcl@gmail.com, Massapequa High School – Ames Campus, Massapequa, NY, USA*

Want to help your struggling algebra students? Come and learn some techniques to help get all students engaged in your lessons. Tips and techniques will be explored on the TI-84 Plus Silver Edition Graphing Calculator. You will also learn some great ways to make your SMART Notebook™ software more interactive.

**4:30 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 8**

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA I

## 211 Discovering the Unit Circle Using the TI-84 Plus Silver Edition Graphing Calculator

*TI-84 Plus Silver Edition Graphing Calculator*

*Ronda Davis, davis\_r@aps.edu, Albuquerque Public Schools, Albuquerque, NM, USA*

Participants will draw a circle, collect some data from circles and explore the characteristics of circles. See how this helps students unfold and understand the unit circle without memorization. Use the data collected to look at trigonometry identities and brainstorm how this same data can be used throughout an entire trigonometric unit.

**4:30 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 9**

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA II

## 213 Data Gathering Activities with the TI-Nspire™ Handheld

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Valerie Hudson, vhudson@ti.com, Colleyville, TX, USA*

Engage your students with activities geared toward middle grades classes using the TI-Nspire™ Handheld along with hands-on activities, CBR 2™ and temperature probe. Participants will receive the activities so they can be used with students right away.

**4:30 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 11**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH

## 214 Exploring Middle School Mathematics Using the TI-Nspire™ Handheld

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Blake Helm, blake.helm@yahoo.com, Tyler Independent School District, Tyler, TX, USA*

Come experience how the TI-Nspire™ Handheld can be used to engage middle school students in meaningful and mathematically rich activities that deepen conceptual understanding.

**4:30 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 12**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH

# Saturday Session Details



**216 STEM: Now or Never!**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Greg Dodd, gbdodd@gmail.com, George Washington High School, Charleston, WV, USA*

Join this hands-on workshop and learn how the appropriate use of technology in the science classroom can facilitate STEM instruction. Our present and future lives are dependent upon making America more competitive by training a STEM-educated work force. Presently, the STEM subjects are usually taught independently of each other. The goal of this workshop is to make STEM Instruction cross-curricular by using 21st Century Skills and Technology. Teachers will take part in a hands on activity that will integrate cross-curricular STEM Instruction.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 109 B**

*Seats: 60*

*90-Minute Hands-On*

GENERAL SCIENCE

**217 The Business of You: Double Your Productivity, Reduce Your Stress and Balance Your Life**

*Steve McClatchy, steve@alleer.com, Malvern, PA, USA*

Time management is not about managing the clock. It's about managing you and the decisions you make regarding how you spend your time. Your criteria for making decisions is at the core of your success or failure. In this fast paced, interactive and entertaining session you will learn which decisions bring you success, balance, control, satisfaction and ultimately happiness — and which ones do not. You will also learn the four keys to using a time management system effectively and the three skills possessed by great time managers.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 110 AB**

*Seats: 40*

*90-Minute Hands-On*

ADMINISTRATOR

**218 Real Data. Real Time. Data Collection in the Science Classroom with the TI-Nspire™ CAS Handheld.**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ Lab Cradle*

*Ed Roberts, edwin.roberts@swcs.us, Franklin Heights High School, Columbus, OH, USA*

This session emphasizes data collection in the high school science classroom using various sensors and the TI-Nspire™ Family of Handhelds. Participants will work hands on with the Vernier® DataQuest app for the TI-Nspire™ CAS Handheld and different data collection devices such as temperature, light, force and gas pressure sensors. TI's CBR 2™ data collection device will also be used in a wide range of science activities.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 111 B**

*Seats: 60*

*90-Minute Hands-On*

GENERAL SCIENCE

**219 The Power of the TI-Nspire™ Navigator™ System**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Jennifer Wilson, jwilson@rcsd.ms, Northwest Rankin High School, Flowood, MS, USA*

*Co-Presenter: Jeff McCalla*

Engage in the CCSS Mathematical Practices as the learner and begin to see how the TI-Nspire™ Navigator™ System affords formative assessment opportunities to ensure every student has a voice in your classroom.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 112 A**

*Seats: 40*

*90-Minute Hands-On*

ASSESSMENT

**220 Advanced Questioning with the TI-Nspire™ Navigator™ System**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Don Worcester, dworcester@cfl.rr.com, Winter Park High School, Winter Park, FL, USA*

This session is for participants who have an understanding of how to use the TI-Nspire™ Navigator™ System but are unsure of how to integrate the advanced questioning techniques, such as equation on image, dropping points, data aggregation and labeling images. Participants will take on the role of students during the presentation. At the end of the session, participants will receive handouts on how to use the questioning techniques that were demonstrated.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 112 B**

*Seats: 40*

*90-Minute Lecture/Demonstration*

ASSESSMENT

## 221 Biology Labs Using the TI-Nspire™ Handheld

*TI-Nspire™ CX Handheld, TI-Nspire™ Lab Cradle*

*Judy Day, judy\_day@mac.com, NC State University, Raleigh, NC, USA*

*Co-Presenter: Louise Chapman*

Learn how to do basic Biology and Life Science labs using the TI-Nspire™ Handheld. Emphasis will be upon learning the basics and labs on photosynthesis, cellular respiration, transpiration and osmosis.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 113 A**

*Seats: 80*

*90-Minute Hands-On*

BIOLOGY

## 222 Blasting Off with NASA in Your Science Classroom

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Todd Morstein, morsteint@sd5.k12.mt.us, Glacier High School, Kalispell, MT, USA*

Use NASA data in your chemistry labs to connect them to real world problems.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 113 B**

*Seats: 80*

*90-Minute Hands-On*

CHEMISTRY

## 223 Nspired Sciences for the Middle Grades

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*David Young, dayoung7@gmail.com, Fayetteville High School, Fayetteville, AR, USA*

Come explore the new middle grades Science Nspired Resource Center. Learn what is available to teach Physical, Earth and Life Sciences using the Lua simulations and more.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 113 C**

*Seats: 80*

*90-Minute Hands-On*

MIDDLE GRADES SCIENCE

## 224 The TI-Nspire™ App for iPad®: How to Use and Creatively Integrate with Other Cool iPad® Apps

*TI-Nspire™ App for iPad®*

*Tom Reardon, tom@tomreardon.com, Fitch High School/Youngstown State University, Poland, OH, USA*

The convergence of color, touch and interactive technologies is now here. See how to utilize the TI-Nspire™ App for iPad® as a teacher with many tips and tricks. Also clever student uses of this app will be illustrated. The iPad app allows you to interact with current TI-Nspire™ Activities and create .tns files on the spot. Also see how to use your iPad® with other cool apps to assist with presentations, .tns file storage and video lesson creation. See how to make your iPad® an emulator. Definitely assists your students with conceptual understanding of difficult math concepts.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 114**

*Seats: 600*

*90-Minute Lecture/Demonstration*

GENERAL INTEREST

## 226 Real-World Applications Using Vernier® DataQuest and the TI-Nspire™ Navigator™ System Live Presenter for Data Collection

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*JoAnn Miltenberg, milty630@aol.com, Farmingdale High School, Farmingdale, NY, USA*

Use the TI-Nspire™ Handheld with the Vernier® DataQuest Application, the CBR 2™ app, and temperature, voltage and light probes for data collection that models real-life situations. Perform experiments involving linear, exponential, quadratic and step functions, trigonometric graphs and more. Use technology effectively and appropriately to create a student-centered classroom.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 115 B**

*Seats: 80*

*90-Minute Hands-On*

TECHNOLOGY

## **227 TI-Nspire™ Technology and the Flipped Classroom: The Possibilities for Blended Learning are Endless**

*Richard Snow, richardsnow@nl.rogers.com, St. John's, NL, CANADA*

In this session participants will be shown how TI-Nspire™ Technology can be used by teachers to flip their classroom and create resources for blended learning. The session includes the use of such tools as the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature, Adobe® Captivate®, Blackboard Collaborate™, YouTube™ and Desire2Learn® to create and track online content.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 115 C**

*Seats: 80*

*90-Minute Lecture/Demonstration*

TECHNOLOGY

## **228 TI-Nspire™ CAS Handheld Tips and Tricks: The Latest in the Cool and Powerful**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Marc Garneau, piman@telus.net, Surrey, BC, CANADA*

Have you seen or used some Math Nspired documents and wondered, *How did they do that?* Come learn some of my favorite tricks for making your own action/consequence documents come alive! There are some new and exciting things with the latest operating system too.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 116**

*Seats: 80*

*90-Minute Hands-On*

AUTHORING

## **229 Interpreting Graphs in AP\* Calculus**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Tom Becvar, tbecvar@sluh.org, St. Louis University High School, St. Louis, MO, USA*

*Co-Presenter: Vicki Carter*

AP\* Calculus problems presented with graphical stems can be quite challenging for students. Students often struggle to make the correct interpretations and connections. In this interactive session, participants will review classroom lessons about derivatives and integrals with information presented in graphical form. They will then consider and discuss different effective approaches that students can use to understand and solve appropriate calculus questions. Participants will also develop strategies for using the TI-Nspire™ CAS Handheld in the classroom to support student learning for these types of problems.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 117**

*Seats: 80*

*90-Minute Hands-On*

CALCULUS

## **231 The TI-Nspire™ and Standards for Mathematical Practice: A Beautiful Match**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Katie England, katiemengland@me.com, Montgomery County Public Schools, Westminster, MD, USA*

Creating a classroom climate that fosters the Common Core State Standards for Mathematical Practice requires thoughtful planning. TI-Nspire™ Technology provides a tool with which students can explore mathematics, develop reasoning abilities and problem solve through rich activities. This session will dig into some of these activities with a focus on strengthening students' mathematical practices.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 118 B**

*Seats: 80*

*90-Minute Hands-On*

TECHNOLOGY

## **232 Best Teaching Practices Using the Networked TI-Nspire™ Navigator™ NC for Computers or TI-Nspire™ Navigator™ for Handhelds**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Navigator™ NC System*

*Ellen Browne, esbrowne@pomfretschool.org, Pomfret School, Pomfret, CT, USA*

Use the TI-Nspire™ Navigator™ System to help implement best practices in the classroom. Start the lesson where the students are, not where you think they are, using documents. Keep everyone engaged using presenter and screen capture. Use the aggregate data feature to facilitate understanding and group work. Increase understanding using action consequence documents. Adjust the lesson on the fly and scaffold using quick poll, save and plan the next lesson around real data.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 118 C**

*Seats: 80*

*90-Minute Hands-On*

GENERAL MATH



## 233 The TI-Nspire™ Document Player: What is it?

Tracy Watson, [tracymath@yahoo.com](mailto:tracymath@yahoo.com), University of Arkansas at Little Rock, Little Rock, AR, USA

The TI-Nspire™ Document Player (powered by TI-Nspire™ Technology) is a free online and downloadable player. It lets you open, view, save, print and share TI-Nspire™ Documents, including TI PublishView™ files. Come and learn how to create documents that your students can watch at home using the Document Player.

**8:00 a.m. - 9:30 a.m.**

**Location:** Convention Ctr.

**Room:** 119 A

Seats: 60

90-Minute Hands-On

AUTHORING

## 234 TI PublishView™ Documents: Creating and Using

Brenda Peterman, [bpeterman@hotsprings1.org](mailto:bpeterman@hotsprings1.org), Hot Springs County High School, Thermopolis, WY, USA

Review, enrich, or remediate with TI PublishView™ documents. Allow students to access Texas Instruments technology within a document accessible from any computer with internet access. Create your own document to highlight lessons, concepts and connections for students using TI PublishView™. Using TI-Nspire™ Teacher Software, participants will create a document for instruction in one of their own courses. The degree of difficulty for your document is up to you, we will discuss including text, calculator applications, imbedding video and even how to program connections between window panes. We will publish completed documents to make them available through TI-Nspire™ Document Player (powered by TI-Nspire™ Technology).

**8:00 a.m. - 9:30 a.m.**

**Location:** Convention Ctr.

**Room:** 119 B

Seats: 60

90-Minute Hands-On

TECHNOLOGY

## 235 No Handhelds? No Problem! Use the TI-Nspire™ Teacher Software as a Powerful Demonstration Tool.

TI-Nspire™ Navigator™ NC System

Julie Riggins, [julie.riggins@gmail.com](mailto:julie.riggins@gmail.com), East Forsyth High School, Kernersville, NC, USA

You can use the TI-Nspire™ Teacher Software as a powerful demonstration tool to enrich difficult lessons. We will look at three lessons: end behavior of polynomial functions, an intro to sine and cosine graphs and the box problem. To help students discover zeros and end-behavior of polynomial functions, we will create a dynamic TI-Nspire™ Document for use with the online TI-Nspire™ Document Player (powered by TI-Nspire™ Technology) that takes advantage of the new condition option in v.3.2. We will also experiment with the TI-Nspire™ Navigator™ Teacher Software PublishView™ Feature as I show how I introduce the sine and cosine graphs in trig and summarize the box problem in Algebra II.

**8:00 a.m. - 9:30 a.m.**

**Location:** Convention Ctr.

**Room:** 120 A

Seats: 80

90-Minute Hands-On

ALGEBRA II

## 236 Rethinking Fractions: Implications for Teaching and Learning Algebra

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Gail Burrill, [burrill@msu.edu](mailto:burrill@msu.edu), Michigan State University, East Lansing, MI, USA

The Common Core State Standards develop fractions based on a unit fraction related to a number line. What does this mean for how students should learn about fractions, how is this connected to proportional reasoning and how can later grades build on these foundations? Supported by interactive dynamic technology and action/consequence documents, this approach holds promise for addressing many student misconceptions in learning Algebra. The discussion will focus on what we can do in middle and high school classrooms to take advantage of this new opportunity to improve how we teach some basic algebraic concepts.

**8:00 a.m. - 9:30 a.m.**

**Location:** Convention Ctr.

**Room:** 120 B

Seats: 80

90-Minute Hands-On

ALGEBRA I

## 237 Nspiring Linearity in the Everyday Student

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Patrick Sanchez, [sanchezpb@att.net](mailto:sanchezpb@att.net), Waller High School, Waller, TX, USA

Co-Presenter: Abigail Sanchez

In this hands-on session, participants will experience how the TI-Nspire™ Handheld and TI-Nspire™ Navigator™ System can enhance the development of linear concepts in Algebra I. Using the many features of the TI-Nspire™ Handheld and TI-Nspire™ Navigator™ System we will demonstrate how concepts such as Linear Parent Function, Slope and Rate of Change, Y-intercept, Line of Best Fit and others can be made more *figure-ouable* to the everyday student.

**8:00 a.m. - 9:30 a.m.**

**Location:** Convention Ctr.

**Room:** 120 C

Seats: 80

90-Minute Hands-On

ALGEBRA I

## **238 I've Turned It On, Now What? Getting Started with the TI-Nspire™ Handheld.**

*TI-Nspire™ CX Handheld*

*Sherry Everding, severding@corjesu.org, Cor Jesu Academy, St. Louis, MO, USA*

*Co-Presenter: Aurelia Weil*

This session introduces new users to the world of TI-Nspire™ Handheld technology. Come explore from the beginning and participate in activities you can bring back to students to help them gain a deeper understanding through multiple representations. No experience necessary; it's easier than you think! Activities will touch on Algebra I and above.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 121 A**

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA I

## **239 Some New Angles on Old Geometry**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*William Caroscio, bcaroscio@gmail.com, Elmira, NY, USA*

Geometry has experienced a decline in the secondary school curriculum. Why? It is time to reverse this trend and today's technology tools provide a platform for helping in this effort.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 121 B**

*Seats: 80*

*90-Minute Hands-On*

GEOMETRY

## **240 Common Core-aligned Math Nspired Geometry Activities: Hands-On Explorations with Student Feedback and Assessment Results**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Michelle Goetz, mgoetz@parkwayschools.net, Parkway North High School, St. Louis, MO, USA*

*Co-Presenter: Ann Schlemper*

The Math Nspired Resource Center is a great, free resource for teachers looking for activities that are aligned with the Common Core standards. Several of the Nspired Geometry activities will be explored during the session. The opinions of what students who experienced these activities during an actual geometry class will also be shared. Results of instruments used to assess students' understanding of the Common Core standards will also be provided.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 121 C**

*Seats: 60*

*90-Minute Hands-On*

GEOMETRY

## **241 Linear Regression in Context Using the TI-Nspire™ CAS Handhelds and TI-Nspire™ Navigator™ System**

*TI-Nspire™ Navigator™ NC System*

*Armando Lopez-Zamudio, larmandozam@hotmail.com, Patzcuaro, MEXICO*

In this workshop, we'll work with activities that apply the use of the TI-Nspire™ CAS Handheld to take advantage of their characteristics to manipulate multiple representations of concepts. Particularly, we will work with real data obtained through contexts that we have gotten from our high school students' interest; for example, the use of cell phones and climatic factors. This handheld will allow us to perform linear regression calculations by just one click to the command of the model we choose. This will allow us to investigate more about conceptual aspects and how confidence is the associated model.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 122 A**

*Seats: 60*

*90-Minute Hands-On*

STATISTICS

## **242 Tools, Tips, Tricks, and Techniques for the TI-Nspire™ CAS Handheld**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Jerry Scherer, jscherer@vianet.ca, Thornhill, ON, CANADA*

The TI-Nspire™ CAS Handheld and software have many built-in tools for teachers to create activities for students to learn and explore concepts. Learn the basic skills, tips and shortcuts for the six applications: Calculator, Graphs, Geometry, Lists & Spreadsheet, Data & Statistics and Notes. Learn advanced techniques involving sliders and interactive math boxes to create professional looking activities. This session is suitable for both beginner and intermediate users. Forgot or want to know how to do a task? Come to this session and leave with several action/consequence files that can serve as a tutorial, a review or reference document.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 122 B**

*Seats: 160*

*90-Minute Hands-On*

GENERAL INTEREST

## **243 Providing Differentiated Support for All Students Using the TI-Nspire™ Navigator™ System and TI-Nspire™ CAS Handheld**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Allan Bellman, aebellman@ucdavis.edu, University of Mississippi, Oxford, MS, USA*

The TI-Nspire™ Navigator™ System has the ability to provide continuous assessment and to send and collect documents individually and by groups. Coupled with the inquiry-based interactive learning environment, it allows a teacher to provide whole class, small group and individual instruction in a single classroom at various times throughout a class period. Come experience and discuss sample instructional segments that show how you can easily provide differentiated instruction in your Algebra classroom. Learn how to help all students, no matter their level, succeed.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 123**

*Seats: 80*

*90-Minute Lecture/Demonstration*

ALGEBRA II

## **244 Flipped Out about CCSS in Algebra II with the TI-Nspire™ Navigator™ System**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Robyn Poulsen, rpoulsen@lpcsd.org, Lake Placid Middle/High School, Lake Placid, NY, USA*

Don't let CCSS flip you out. The Standards for Mathematical Practice seem to *scream* for teachers to *flip* their classrooms. The TI-Nspire™ Navigator™ System makes meeting the standards easier. In the flipped TI-Nspire™ Navigator™ classroom, students are actively engaged in their learning, and they have the time to effectively meet both the Standards for Mathematical Practice and Content Standards. Additionally, assessments are more effective and less time consuming for teachers. Participants will experience the flipped TI-Nspire™ Navigator™ Algebra II classroom with several activities. Files will be shared so bring your TI-Nspire™ Handheld, a flash drive and a pencil.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 124**

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA II

## **245 Give the Devil His Due Using the TI-Nspire™ Navigator™ System: Geometric Sequences Numerically, Graphically, Algebraically**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Dennis Donovan, ddhawk1@yahoo.com, Xaverian Brothers High School, Abington, MA, USA*

In this hands-on workshop, participants will be asked to evaluate an investment plan proposed by the Devil. Geometric and non-geometric sequences will be examined numerically and graphically. Participants will also examine the sequences algebraically by determining recursive and explicit formulas for both by translating a verbal description of the sequence and exploring the ratios of terms. There is an optional CAS component to explore the sequences symbolically.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 125**

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA II

## **246 Get to the Common Core with the TI-Nspire™ Handheld (Part 2)**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Kimberley Thomas, kim.thomas@me.com, Moon Valley High School, Peoria, AZ, USA*

*Co-Presenter: Veronica Carlson*

This is Part 2 for participants to continue exploring the TI-Nspire™ Applications to understand how technology deepens understanding of math concepts. Continue to identify how all eight mathematical practices are naturally integrated into the math classroom while using TI-Nspire™ Technology. Participation in Part 1 is encouraged but not required. Skills are targeted to those new to TI-Nspire™ Technology and software. This presentation will benefit beginners.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 126 A**

*Seats: 180*

*90-Minute Hands-On*

GENERAL INTEREST

## **247 Energizing and Connecting for Student Understanding Using the TI-Nspire™ Navigator™ System**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Deborah Kula, dkula@sacredhearts.org, Sacred Hearts Academy, Honolulu, HI, USA*

Connect your students' learning to energize classroom activity. Experience the power of the TI-Nspire™ Navigator™ System with quick polls for meaningful formative assessment and the excitement of a classroom learning space that contains input from all students.

**8:00 a.m. - 9:30 a.m.**

**Location: Convention Ctr.**

**Room: 126 B**

*Seats: 60*

*90-Minute Hands-On*

PRECALCULUS

## **248 Middle School Activities Using the TI-84 Plus C Silver Edition Graphing Calculator**

*TI-84 Plus C Silver Edition Graphing Calculator*

*Fred Decovsky, fdecovsky@aol.com, Millburn, NJ, USA*

This hands-on session will feature calculator activities aligned with the Common Core State Standards and will support middle school math instruction. Topics will include multiple representations of data, graphing, fraction computations, solving equations and much more. A demonstration of several apps and programs will also be provided.

**8:00 a.m. - 9:30 a.m.**

**Location: Marriott**

**Room: Franklin 1**

*Seats: 60*

*90-Minute Lecture/Demonstration*

MIDDLE GRADES MATH

## **249 Type II Error And Power of A Test: Statistics with the TI-84 Plus C Silver Edition Graphing Calculator**

*TI-84 Plus C Silver Edition Graphing Calculator*

*Mike Koehler, Blue Valley North High School, Kansas City, MO, USA*

Simulation techniques that enhance the understanding of Type II error and the power of a test will be examined using the TI-84 Plus C Silver Edition Graphing Calculator. This topic is difficult for students and the concept is difficult to explain to students. This workshop will address both concerns. Participants will get hands-on experience using simulations that model effective classroom use of technology as well as activities that have been effectively used in AP\* Statistics classes.

**8:00 a.m. - 9:30 a.m.**

**Location: Marriott**

**Room: Franklin 2**

*Seats: 60*

*90-Minute Hands-On*

STATISTICS

## **250 A Geometry Lab in Your Hand: Using the Cabri™ Jr. App on the TI-83 Plus and TI-84 Plus Families of Graphing Calculators**

*TI-84 Plus Silver Edition Graphing Calculator*

*Karen Campe, skcampe@optonline.net, Yale University, New Canaan, CT, USA*

No computer lab? Use the free Cabri™ Jr. app on the TI-83 Plus and TI-84 Plus Silver Edition graphing calculators to investigate geometry with technology right in your classroom. Handouts with classroom-ready lessons will be provided.

**8:00 a.m. - 9:30 a.m.**

**Location: Marriott**

**Room: Franklin 4**

*Seats: 60*

*90-Minute Hands-On*

GEOMETRY

## **251 Meaningful Algebra with CAS**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Steve Arnold, smarnold@me.com, Kiama Downs, AUSTRALIA*

Computer Algebra Systems have been around for a very long time, and yet ways in which they may best be used (and even whether they should be used at all) in the learning of Algebra remain undecided. In this session, we explore a variety of ways in which CAS may be used as a key element in teaching Algebra in a meaningful way at all levels.

**8:00 a.m. - 9:30 a.m.**

**Location: Marriott**

**Room: Franklin 5**

*Seats: 60*

*90-Minute Hands-On*

CAS

## **252 Exploring the Calculator and Lists & Spreadsheets Apps on the TI-Nspire™ CAS Handheld**

*TI-Nspire™ CX CAS Handheld*

*Jay Schiffman, schiffman@rowan.edu, Rowan University, Glassboro, NJ, USA*

This hands-on workshop focuses on exploring the power of the TI-Nspire™ CAS Handheld and enabling participants to discover neat mathematics. Problem solving activities will commence in Algebra, Precalculus, Calculus and Number Theory suitable in the high school and collegiate curricula utilizing the Calculator and Lists & Spreadsheets applications. The Lists & Spreadsheets app enables one to generate number theoretic data leading to patterns and the formulation of conjectures based on the analysis of such patterns. The Calculator app is accessed to verify some of our conjectures. Please join us to explore mathematics deeply and completely with our latest technology marvel.

**8:00 a.m. - 9:30 a.m.**

**Location: Marriott**

**Room: Franklin 6**

*Seats: 60*

*90-Minute Hands-On*

CAS

## 253 Enhancing Precalculus and Calculus Learning with Interactive Dynamic Graphs Using TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld

Frank Moya, frank.moya@bigpond.com, Nar Nar Goon, AUSTRALIA

This is a hands-on workshop in which a number of student-centered activities, which have been used successfully in Australian classrooms, will be presented. Participants will learn how to use a number of often under-utilized features of TI-Nspire™ CAS Handheld, including the use of sliders and data capture to create interactive dynamic graphs and geometric objects. The locus function and transformation menu will also be used to interactively investigate the image of a graph or geometric object under various transformations.

**8:00 a.m. - 9:30 a.m.**

**Location: Marriott**

**Room: Franklin 7**

Seats: 60

90-Minute Hands-On

CAS

## 255 Using CAS with Struggling Algebra Students

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Ken Ideck, ken.ideck@d214.org, Wheeling High School, Wheeling, IL, USA

See how we incorporate TI-Nspire™ CAS Handhelds within our Algebra I curriculum with low-level students. It is possible for students to conceptualize algebraic concepts by discovering relationships that are traditionally taught to students. We will show how easy it is for teachers (and students) to begin using a CAS routine and demonstrate how we approach using CAS activities. Activities will be shared with participants, along with time to try them using a class set of TI-Nspire™ CAS Handhelds. Activities have been carefully planned to fully maximize the use of technology, yet allow students opportunities to be both successful and challenged without becoming CAS-dependent.

**8:00 a.m. - 9:30 a.m.**

**Location: Marriott**

**Room: Franklin 9**

Seats: 60

90-Minute Hands-On

CAS

## 256 The TI-15 Explorer™ Calculator is the Tool for Common Core State Standards

TI-15 Explorer™ Calculator

Marsha Burkholder, teamburk@yahoo.com, West Broad Elementary, Columbus, OH, USA

In this hands-on elementary session, participants will be exploring the use of the TI-15 Explorer™ Graphing Calculator with the Common Core State Standards. We will be using its many features to help students gain an understanding of math concepts.

**8:00 a.m. - 9:30 a.m.**

**Location: Marriott**

**Room: Franklin 10**

Seats: 60

90-Minute Hands-On

ELEMENTARY MATH

## 257 Common Core Got You Down?

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Miguel Garcia, garzac@comcast.net, Granite School District, Salt Lake City, UT, USA

Co-Presenter: Heather Riddle

This is a course for beginners who want to learn how to incorporate the TI-Nspire™ CAS Handheld into their classrooms. Participants will find engaging activities that will make the Common Core come to life. See how the practice standards make math meaningful. See how TI-Nspire™ Technology brings mathematics to life.

**8:00 a.m. - 9:30 a.m.**

**Location: Marriott**

**Room: Franklin 11**

Seats: 60

90-Minute Hands-On

MIDDLE GRADES MATH

## 258 M&M's® and More: Data Analysis for Middle School Grades Using the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Beth Smith, bsmitht3@bellsouth.net, Episcopal School of Jacksonville, Jacksonville, FL, USA

We will use the TI-Nspire™ Handheld and the TI-Nspire™ Navigator™ System to collect and analyze data. Numerical and categorical data will be explored. Connections between ratios, decimals, percents and degrees in a circle will be made. Learn the basics of the list and spreadsheets page and how to create a pie chart and a bar chart using the data and statistics page. Leave with a big picture activity ready to be used in your classroom that addresses the CCSS.

**8:00 a.m. - 9:30 a.m.**

**Location: Marriott**

**Room: Franklin 12**

Seats: 60

90-Minute Hands-On

MIDDLE GRADES MATH



## **259 Dealing with Data in Middle Grades Using Multiple Representations and the TI-84 Plus Graphing Calculator Family**

*TI-Navigator™ Classroom Learning System, TI-84 Plus Silver Edition Graphing Calculator*

*Jane Barnard, janebarnard@charter.net, Milledgeville, GA, USA*

Our world is full of interesting data. Students gravitate toward mathematics they can use with information from their own world. Activities and tasks related to data appropriate for middle grades will be shared as participants build a real-life box-and-whisker plot and then by-hand and graphing calculator plots to reinforce the five-number summary of data. Students learn mathematics by *doing* mathematics, and these tasks assure student engagement and motivation. Additionally, data graphed in a coordinate plane will be examined by hand and with the graphing calculator as connections are made among middle grades topics.

**8:00 a.m. - 9:30 a.m.**

**Location: Marriott**

**Room: Franklin 13**

*Seats: 60*

*90-Minute Hands-On*

MIDDLE GRADES MATH

## **261 Cultural Change: Implementing Scientific Literacy Districtwide**

*Eleanor Smalley, info@jason.org, The JASON Project, Ashburn, VA, USA*

*Co-Presenter: Wanda Bamburg*

The JASON Project™ connects students to real science and exploration to inspire and motivate them to study and pursue careers in Science, Technology, Engineering and Math (STEM) fields. JASON embeds exciting STEM professionals and cutting-edge scientific research into award-winning online and print core curricula, adaptable resources, live interactive events and professional development; standards-aligned educational resources such as videos, articles with read-to-me functionality, games and hands-on labs; and teacher resources including online lesson plans, assessments and classroom management. JASON uses their collaboration with Alief ISD and Aldine ISD to demonstrate a systemic and sustainable model increasing student achievement and engagement in STEM.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 109 B**

*Seats: 60*

*60-Minute Lecture/Demonstration*

GENERAL SCIENCE

## **262 (Infusing TI-Nspire™ Family) + (STEM Education) = Bridging the Gap for Educational Leaders**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Edward Chaves, eddie\_chaves@yahoo.com, Miami-Dade County Public Schools, Doral, FL, USA*

Participants will apply STEM modeling to solve real-world problems using the TI-Nspire™ Technology. Educational leaders are focused on instructional content and advanced technological tools to support the teaching and learning in the core subject areas of reading, mathematics, science and other foundational skills in the curriculum. This session is designed to engage educational/instructional leaders in the technology-purchase decision process.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 110 AB**

*Seats: 40*

*60-Minute Hands-On*

ADMINISTRATOR

## **263 The Mathematics of Pulsars and Exoplanets Using the TI-Nspire™ CAS Handheld**

*TI-Nspire™ CX CAS Handheld*

*Stephen Broderick, sjb@st-ursula.qld.edu.au, St. Ursula's College, Toowoomba, AUSTRALIA*

The CSIRO Parkes Observatory's iconic radio telescope in Australia celebrated 50 years of operation in 2011. It has been instrumental in discovering two-thirds of all 1,800 known pulsars. Pulsars are rapidly rotating neutron stars with jets of electromagnetic radiation that stream from the pulsar and are observed as pulses of radio waves. Mathematical topics encountered when analyzing the pulsar catalogue with the TI-Nspire™ CAS Handheld include statistics, periodic functions, linear equations and rotational period. The rotational periods of millisecond pulsars will be determined by using pulsar sound files and a microphone probe. The statistics of over 600 exoplanets and the mathematics used in determining the mass, period and distance of an exoplanet from its parent star will also be investigated. A light probe will be used to simulate the transit method and sliders will be used to illustrate physical properties. Modules from the PULSE@Parkes project will also be addressed.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 111 B**

*Seats: 60*

*60-Minute Hands-On*

PHYSICS



## 264 Bringing Data and Statistics to Life with the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld

Abel Maestas, [amaestas@leadps.org](mailto:amaestas@leadps.org), Leadership Public School – Hayward, Fremont, CA, USA

Through this hands-on, activity-based workshop, participants will have the opportunity to become a statistical display. Using simple data and the dynamic visual capabilities of the TI-Nspire™ Handheld, participants will learn how to provide a student experience that brings data and statistics to life.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 112 A**

Seats: 40

60-Minute Hands-On

STATISTICS

## 265 Calculus Explorations Using the TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld, TI-84 Plus Silver Edition Graphing Calculator

Ken Collins, [kcollins@charlottelatin.org](mailto:kcollins@charlottelatin.org), Charlotte Latin School, Charlotte, NC, USA

This session will use several class investigations that we have found to be effective in helping students understand limits and derivatives. These investigations use the TI-Nspire™ CAS Handheld but can also be done with the TI-84 Plus Silver Edition Graphing Calculator. The focus is on using the calculator and multiple representations to help students gain a better understanding of the mathematical concepts. Everyone is welcome and will receive copies of the investigations.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 112 B**

Seats: 40

60-Minute Lecture/Demonstration

CALCULUS

## 266 Inquiry Science in a Biology Classroom with the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Chad Backsen, [chad.backsen@k12.sd.us](mailto:chad.backsen@k12.sd.us), Roosevelt High School, Sioux Falls, SD, USA

Inquiry experiments allow your students to hone their critical thinking skills and think creatively. Using the TI-Nspire™ Handheld allows your students to use all their science skills from experimental design to analyzing their very own data! We will discuss benefits as well as the concerns of implementing inquiry labs in science classrooms. Come ready for a hands-on investigation of relationships between the environment and our circulatory system function. We will be using the TI-Nspire™ Handheld and hand-grip heart rate monitors.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 113 A**

Seats: 80

60-Minute Hands-On

BIOLOGY

## 267 Chemical Equilibrium: A Matter of Balance

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Ray Lesniewski, [chemguy65@yahoo.com](mailto:chemguy65@yahoo.com), Jones College Prep, Chicago, IL, USA

The concepts of chemical equilibrium and LeChatelier's Principle are extremely difficult for students to grasp. Come learn how a TI-Nspire™ Handheld hands-on activity using pennies and a free computer simulation from the Connected Chemistry Curriculum will help students bridge the macroscopic and particle worlds of chemistry. We will also explore a simulation using the power of data aggregation with TI-Nspire™ Navigator™ System to understand the relationship between equilibrium concentrations and the equilibrium constant. This workshop is appropriate for teachers of both first-year and advanced Chemistry classes.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 113 B**

Seats: 80

60-Minute Hands-On

CHEMISTRY

## 268 Discovering Understanding Through Data Collection

TI-Nspire™ CX Handheld, TI-Nspire™ Lab Cradle

Paul Williams, [pwilliamst3@gmail.com](mailto:pwilliamst3@gmail.com), Red Deer, AB, CANADA

We will use different sensors and several techniques to gather data from a pendulum. The discovery and explanation of discrepant events from this data will help students develop a deeper understanding of concepts and the value of thinking through real data.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 113 C**

Seats: 80

60-Minute Hands-On

PHYSICS

## 269 **Nspired Statistics on iPad®**

*TI-Nspire™ App for iPad®*

*Ray Barton, Olympus High School, Salt Lake, UT, USA*

An overview of statistics features on the TI-Nspire™ App for iPad® and some ideas to help with tough-to-teach, tough-to-learn concepts.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 114**

*Seats: 600*

*60-Minute Lecture/Demonstration*

STATISTICS

## 271 **Match the Graph (Now in Living Color)**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Heidi Rudolph, hrudolph@orangecsd.org, Orange High School, Pepper Pike, OH, USA*

The TI-Nspire™ CX Handheld has the amazing color features that you always wanted in a handheld! Let me help you design learning activities with images inserted into the documents that you send to students for learning about the parent graphs. You can *Match the Graph* using Grab-and-Move or Sliders. This is such a powerful tool for learning that you won't want to miss this session. You will become the author of several documents that you can take back to your classes tomorrow.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 115 B**

*Seats: 80*

*60-Minute Hands-On*

AUTHORING

## 272 **Engaging Middle School Math and Science Students: Interactive Activities Using TI-84 Plus Silver Edition Graphing Calculators and TI-Nspire™ Handhelds with Vernier® Sensors**

*TI-Nspire™ CX Handheld, TI-84 Plus Silver Edition Graphing Calculator, TI-Nspire™ Lab Cradle*

*Herb Green, herbgreen@temple.edu, Temple University, Philadelphia, PA, USA*

*Co-Presenter: Sean Kennedy*

Would you like your middle or high school students to be more engaged and excited about your math or science class? Come experience hands-on activities using the TI-84 Plus Silver Edition Graphing Calculator and the TI-Nspire™ Handheld with Vernier® Sensors to investigate relationships among temperature, pressure and motion. We will draw connections to the Common Core State Standards for math and science. Join a discussion of strategies for implementing these and other similar activities in your classroom.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 115 C**

*Seats: 80*

*60-Minute Hands-On*

TECHNOLOGY

## 273 **Writing CAS Programs for the TI-Nspire™ CAS Handheld**

*TI-Nspire™ CX CAS Handheld*

*George Marino, georgejmarino@aol.com, Aurora Central Catholic High School, Aurora, IL, USA*

You will write programs on the TI-Nspire™ CAS Handheld calculator that make use of the CAS technology and expand the possibilities of this technology. You will learn to do things you thought impossible even on this calculator like generating a geometric figure from a logo-like description that retains exact coordinates.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 116**

*Seats: 80*

*60-Minute Hands-On*

PROGRAMMING

## 274 **Parametric 3D Plotting with the TI-Nspire™ CAS Handheld**

*TI-Nspire™ CX CAS Handheld*

*Michel Beaudin, michel.beaudin@etsmtl.ca, Ecole de Technologie Supérieure, Montreal, QC, CANADA*

The subject of parametric surfaces and curves is included in multiple variable calculus textbooks. Usually the examples are simple with no mathematics involved. In this talk, we will show examples of intersecting surfaces and show how to find parametric equations for the curve of intersection in specific cases. Many TI-Nspire™ CAS Handheld commands will be used.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 117**

*Seats: 80*

*60-Minute Lecture/Demonstration*

CALCULUS

# Session Details

MARCH 9  
**Saturday**

## **275 Fun with TI-Nspire™ CAS Handheld**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Jennifer Chirles, jchirles@darienps.org, Darien High School, Darien, CT, USA*

*Co-Presenter: Brittany Zweibel*

Learn to create some fun Common Core-related activities to do on the TI-Nspire™ Family of Handhelds. Learn how to enhance your lessons with the TI-Nspire™ Navigator™ System. Activities for all grade levels from Pre-Algebra to Calculus will be shared.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 118 A**

*Seats: 80*

*60-Minute Hands-On*

GENERAL MATH

## **276 Changes in the Plan Through the TI-Nspire™ CAS Handheld**

*TI-Nspire™ CX CAS Handheld*

*Sofia Murillo Martinez, sofiamurillo@usantotomas.edu.co, Universidad Santo Tomás and Universidad Militar, Bogotá, COLOMBIA*

*Co-Presenter: Jose Luis Espinosa Reina*

In the real world the movement of objects or figures happens in three dimensional space. This session will focus on topics difficult for students such as understanding movements and changes in space and dimension such as throwing a stone, the jump of an athlete, rotation of a skater on ice, among others.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 118 B**

*Seats: 80*

*60-Minute Hands-On*

GENERAL MATH

## **277 An Introductory Tour of the TI-Nspire™ Handheld**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Ron Kennedy, kennedy.ronj@gmail.com, Edmonton Catholic Schools, Edmonton, AB, CANADA*

*Co-Presenter: Stephanie MacKay*

This presentation for first-timers will provide a rapid start-up implementing the TI-Nspire™ Handheld in the mathematics classroom. The focus will be on its document-based approach and different operational modes emphasizing its capabilities to create and teach for greater depth and understanding — an essential aspect of the vision for successful Mathematical Practices.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 118 C**

*Seats: 80*

*60-Minute Hands-On*

GENERAL MATH

## **278 Using the Assessment Portfolio Strategically with the TI-Nspire™ Navigator™ System to Lessen Teacher Grading Time**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Jeremy Zelkowski, jzelkowski@bamaed.ua.edu, The University of Alabama, Tuscaloosa, AL, USA*

This session will walk through using the portfolio gradebook features of the TI-Nspire™ Navigator™ System strategically to lessen teachers' grading time. If new users of the TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System can lessen grading time, more time exists to create and modify lessons for use in the classroom. Techniques for weighting questions, scoring, totaling, etc. will be done. Options for collecting daily homework electronically will be examined. Participants will be encouraged to ask questions and take the session in a direction to meet their needs.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 119 A**

*Seats: 60*

*60-Minute Hands-On*

GENERAL MATH

## **279 Use TI-Nspire™ Technology to Create a Video**

*Marsha Guntharp, marsha\_guntharp@pba.edu, Palm Beach Atlantic University, Jupiter, FL, USA*

Come and see what students have done. To make your own video, first come up with ideas of themes and possible music ideas. We will then use TI-Nspire™ Technology to create a flip chart, using functions, inequalities, piece-wise functions, function transformations, geometric drawings and attributes (dashed lines, etc.). Using the created flip chart, it is then an easy matter to put together a video.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 119 B**

*Seats: 60*

*60-Minute Hands-On*

PRECALCULUS

## **280 What do Yeast Like to Eat? An Argument-driven Inquiry Utilizing Probes and Laptops.**

Melanie Hester, [mhester@admin.fsu.edu](mailto:mhester@admin.fsu.edu), Florida State University School, Tallahassee, FL, USA

Attendees will be taken through an argument-driven inquiry where they will explore the concepts of cellular respiration. The goal of the investigation is to answer the question *Does the type of food source influence the respiration rate of yeast?* Using CO<sub>2</sub> and O<sub>2</sub> gas sensors and laptops, attendees will determine which of six different food sources has the greatest effect on the respiration rate of yeast. This is a biology lab that can be used at a variety of levels from middle school life science to AP\* Biology.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 120 A**

Seats: 80

60-Minute Hands-On

BIOLOGY

## **281 Using the TI-Nspire™ Handheld to Teach the CCSS**

TI-Nspire™ CX Handheld

Terri Faitel, [terrifaitel@yahoo.com](mailto:terrifaitel@yahoo.com), Fordson High School, Dearborn, MI, USA

Co-Presenter: Abby Kerr

Participants will engage in activities for the TI-Nspire™ Handheld that help students acquire a deeper level of understanding of the CCSS being taught.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 120 B**

Seats: 80

60-Minute Hands-On

ALGEBRA I

## **282 Using the TI-Nspire™ Navigator™ System to Improve Student Achievement in a Community College Classroom**

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Dave Usinski, [usinski@gmail.com](mailto:usinski@gmail.com), SUNY Erie Community College, Depew, NY, USA

In this hands-on workshop, participants will work with selected lessons from TI's Math Nspired Resource Center ([MathNspired.com](http://MathNspired.com)). The presenter will offer tips on how to effectively implement the use of the TI-Nspire™ CAS Handheld within Algebra and Precalculus courses, including modifications to classroom instruction and how examinations have evolved.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 120 C**

Seats: 80

60-Minute Hands-On

ALGEBRA I

## **283 Using the TI-Nspire™ Handheld to Investigate Concepts Found in Algebra I**

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Edward DePeau, [depeau@ccsu.edu](mailto:depeau@ccsu.edu), Central Connecticut State University, New Britain, CT, USA

Participants will create and engage in activities for the TI-Nspire™ Handheld designed to help students develop a deep understanding of concepts found in an Algebra I course. Activities will include multiple representations addressing the needs of different learning styles and helping to develop representational fluency.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 121 A**

Seats: 80

60-Minute Hands-On

ALGEBRA I

## **284 Have You Got the Right Image? Transformations in the Coordinate Plane with the TI-Nspire™ Handheld.**

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Margaret Bambrick, [ndbambrick@att.net](mailto:ndbambrick@att.net), Deland, FL, USA

Co-Presenter: Ruth Casey

The TI-Nspire™ Handheld will be used as a tool to enhance the implementation of the Common Core Mathematical Practices in the classroom. Participants will explore strategies to engage students in generalizing the patterns and relationships that lead to the understanding of transformations in the coordinate plane. The TI-Nspire™ Navigator™ System will be used to assist in increasing engagement and understanding, and assessing student learning. Transformations may include translations, reflections and rotations. In addition photographs of geometric shapes will be used to connect mathematics to the world around us.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 121 B**

Seats: 80

60-Minute Hands-On

GEOMETRY

## **285 Discovering the Definition of the Parabola Using TI-Nspire™ Handheld as Seen Through a Common Core Classroom**

*TI-Nspire™ CX Handheld*

*Stan Pappo, spappo@optonline.net, Port Jefferson Station, NY, USA*

Participants will discover the definition of the parabola using the TI-Nspire™ Handheld in four ways: visually, geometrically, algebraically and through data collection. This will be in the setting of a Common Core classroom.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 121 C**

*Seats: 60*

*60-Minute Hands-On*

GEOMETRY

## **286 Using the TI-Nspire™ Handheld in a Stats Classroom**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Matt Almon, matt.almon\_ti@yahoo.com, Joliet West High School, Joliet, IL, USA*

Are you new to teaching Statistics or are you new to working with the TI-Nspire™ Handheld? Either way, this is the session for you. We will be looking at some of the basic features of the TI-Nspire™ Handheld and how to use them in your Stats classroom. This is a great entry-level opportunity for anyone who is new either to TI-Nspire™ Technology or Stats to walk away with some sample activities and tools for the classroom.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 122 A**

*Seats: 60*

*60-Minute Hands-On*

STATISTICS

## **287 The TI-Nspire™ CAS Handheld for Beginners: Turning the Mountain Back into a Molehill**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Tracy Wingert, wingerts@frontiernet.net, Le Mars Community High School, Le Mars, IA, USA*

This session is for teachers who have no experience or very little experience with the TI-Nspire™ CAS Handheld. In this session, we will explore your new learning tool. The goals are to increase your comfort level with the device and to help you learn how to make the machine work for you. We will also be using the TI-Nspire™ Navigator™ System during this presentation.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 122 B**

*Seats: 160*

*60-Minute Hands-On*

GENERAL INTEREST

## **288 Using the TI-Nspire™ Navigator™ System: Not the App, but the System**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Andrew Amstutz, amstutz24@hotmail.com, Franklin Heights High School, Columbus, OH, USA*

We will discuss common uses of the TI-Nspire™ Navigator™ System that will help enhance instruction and efficiency in the classroom. Topics will include use in homework, testing and discovery activities.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 123**

*Seats: 80*

*60-Minute Hands-On*

ALGEBRA II

## **289 TI-Nspire™ Navigator™ and the Three Rs: Rigor, Relevance and Relationships**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Tracy Slate, slatet@windstream.net, Sallisaw High School, Gore, OK, USA*

Let's face it: the days of students skipping the word problem and succeeding in mathematics are over. As teachers, we have to find ways to make students want to dig deeper and think through problems rather than look for the easy way out. Using the TI-Nspire™ Navigator™ System with some simple data-gathering techniques can make fighting word problems a thing of the past. See how a boring textbook problem can be transformed into a relevant learning experience that inspires students to think outside the box while working together as a problem-solving team.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 124**

*Seats: 80*

*60-Minute Hands-On*

ALGEBRA II



## 290 Taking Students to the 21st Century

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System, TI-Navigator™ Classroom Learning System, TI-84 Plus Silver Edition Graphing Calculator, TI-Nspire™ Lab Cradle*

*Ken Phillips, kentrelphillips@lancasterisd.org, Lancaster, TX, USA*

The session is focused on preparing students for the 21st century by providing a highly engaged, student-centered learning environment where the teacher serves as a facilitator. This accomplished by merging the TI MathForward™ Pre-Algebra and Algebra readiness program with materials from the Infinity Project. Students will engage in engineering projects that will allow them to apply both math and science ideas. Math Forward technology will provide a systematic means to collect and organize data, also provide quick and accurate feedback.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 125**

*Seats: 80*

*60-Minute Hands-On*

GENERAL INTEREST

## 291 Hey, How Do I Do That Again?

*TI-Nspire™ CX Handheld, TI-84 Plus Silver Edition Graphing Calculator, TI-Nspire™ CX Navigator™ System*

*Josh Mize, jmize@hcpss.org, Glenelg High School, Glenelg, MD, USA*

*Co-Presenter: Matt Rhodes*

At this session, participants will be able to find out how to perform all of their favorite TI-84 Plus Silver Edition Graphing Calculator tasks on the TI-Nspire™ Handheld. Additionally, participants already familiar with the TI-Nspire™ Family of Handhelds will learn how to create some basic *how-to* tricks. Come prepared with your questions.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 126 A**

*Seats: 180*

*60-Minute Hands-On*

GENERAL INTEREST

## 292 What's My Vector?

*TI-Nspire™ Technology*

*Gina Foletta, foletta@nku.edu, Northern Kentucky University, Highland Heights, KY, USA*

Using TI-Nspire™ Technology and in the spirit of the Common Core State Standards for Mathematics, we will explore, represent and model problems with two-dimensional vectors.

**9:45 a.m. - 10:45 a.m.**

**Location: Convention Ctr.**

**Room: 126 B**

*Seats: 60*

*60-Minute Lecture/Demonstration*

PRECALCULUS

## 293 The TI-84 Plus C Silver Edition Graphing Calculator in Secondary Math in Preparation for AP\* Calculus

*TI-84 Plus C Silver Edition Graphing Calculator*

*Fan Disher, fan.disher@stpsb.org, Mandeville High School, Mandeville, LA, USA*

Calculus Readiness: Are your students being prepared in grades 9 – 11? Learn some of the concepts and TI-84 Plus C Silver Edition Graphing Calculator skills that students should learn and master in underclass secondary math classes to prepare them for success in AP\* Calculus.

**9:45 a.m. - 10:45 a.m.**

**Location: Marriott**

**Room: Franklin 1**

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA II

## 294 Modeling Data with the TI-84 Plus C Silver Edition Graphing Calculator

*TI-84 Plus C Silver Edition Graphing Calculator*

*Judy Hicks, jhicks@ti.com, Arvada, CO, USA*

Let's collect some data and find functions to model the data. How can the new TI-84 Plus C Silver Edition Graphing Calculator be used to enhance the modeling experience? Walk away with some classroom activities for Algebra I, Geometry and Algebra II.

**9:45 a.m. - 10:45 a.m.**

**Location: Marriott**

**Room: Franklin 2**

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA II



## **295 Dynamic Geometry on the TI-84 Plus Silver Edition Graphing Calculator: Cabri™ Jr. Basics**

*TI-84 Plus Silver Edition Graphing Calculator*

*Elizabeth Haskins, cokerea@hotmail.com, Indian River High School, Virginia Beach, VA, USA*

Learn how to use the Cabri™ Jr. application on the TI-84 Plus Silver Edition Graphing Calculator to enhance your Geometry classroom. Does your school not have TI-Nspire™ Technology yet? You can still use dynamic geometry to draw a triangle and measure the angles, construct parallel lines cut by a transversal, and explore other geometric relationships.

**9:45 a.m. - 10:45 a.m.**

**Location: Marriott**

**Room: Franklin 4**

*Seats: 60*

*60-Minute Hands-On*

**GEOMETRY**

## **296 Basic Algebra with TI-Nspire™ CAS Handheld**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Lynda Ferneyhough, d2ybydx2@hotmail.com, Caledon Village, ON, CANADA*

Introduction to simplifying expressions, solving equations, factoring and expanding binomial products will be explored. Using TI-Nspire™ CAS Handheld especially helps those students who have difficulty with Algebra. Some TI Math Nspired activities will be used.

**9:45 a.m. - 10:45 a.m.**

**Location: Marriott**

**Room: Franklin 5**

*Seats: 60*

*60-Minute Hands-On*

**CAS**

## **297 Once Upon a Circle: The TI-Nspire™ CAS Handheld**

*TI-Nspire™ CX CAS Handheld*

*John Hanna, jehanna@optonline.net, Hopatcong, NJ, USA*

Come hear a story of a circle connecting powers of 2, finite differences, a quartic polynomial, Pascal's Triangle, combinatorics and hyperspace. A thriller to the end.

**9:45 a.m. - 10:45 a.m.**

**Location: Marriott**

**Room: Franklin 6**

*Seats: 60*

*60-Minute Hands-On*

**CAS**

## **298 What About Factoring? Is It Relevant with CAS-enabled Tools?**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Michael Buescher, michael@mbuescher.com, Hathaway Brown School, Shaker Heights, OH, USA*

A CAS-enabled device like the TI-Nspire™ CAS Handheld or the TI-89 Titanium Graphing Calculator can factor polynomials in milliseconds. Is factoring still an important part of the high school curriculum? Explore connections among different algebraic and graphical representations and between the Fundamental Theorem of Arithmetic and the Fundamental Theorem of Algebra.

**9:45 a.m. - 10:45 a.m.**

**Location: Marriott**

**Room: Franklin 7**

*Seats: 60*

*60-Minute Lecture/Demonstration*

**CAS**

## **299 The Use of CAS Calculators on ACT® Mathematics Exams by Students in CAS-using Schools**

*M. Kathleen Heid, mkh2@psu.edu, The Pennsylvania State University, University Park, PA, USA*

*Co-Presenter: John McConnell*

A major barrier to widespread adoption of CAS technologies in secondary schools is the prohibition of CAS calculators for use on many state tests and college entrance exams. This session will discuss results of a study that investigated the effects of CAS calculator use on student performance on a released-items version of the ACT® mathematics exam. Students were selected from schools that had adopted CAS calculators for mathematics classroom use. The study included both a quantitative analysis of test results and a qualitative follow-up with a selection of teachers and students.

**9:45 a.m. - 10:45 a.m.**

**Location: Marriott**

**Room: Franklin 8**

*Seats: 60*

*60-Minute Lecture/Demonstration*

**CAS**

## **300 Teaching and Learning Secondary Mathematics with CAS: Reflecting on Two Decades of Research and Development Activities**

*Michèle Artigue, michele.artigue@gmail.com, Université Paris Diderot – Paris 7, Paris, FRANCE*

Since the early nineties, I have been involved in research and development projects regarding the use of CAS for teaching and learning secondary mathematics in the frame of regional, national or European projects. I will share the knowledge gained from this experience regarding the potential of CAS for teaching and learning secondary mathematics, and the conditions necessary for making this potential actualized in the reality of classrooms. Regarding these conditions, I will especially point out the knowledge gained regarding the solving of instrumental issues and the development of appropriate educational resources, emphasizing the necessary collaboration of teachers and researchers in this process.

**9:45 a.m. - 10:45 a.m.**

**Location: Marriott**

**Room: Franklin 9**

*Seats: 60*

*60-Minute Lecture/Demonstration*

CAS

## **302 Incorporating Texas Instruments Graphing Calculators in Middle School Math**

*Mary Burr, mburr@fsu.edu, Florida State University Schools, Tallahassee, FL, USA*

This session will include a variety of hands-on activities with student-friendly, real world problems that utilize graphing calculators. The activities will focus on middle school activities like order of operations, graphing functions and geometry. Teachers will attain engaging classroom activities that are easy to implement.

**9:45 a.m. - 10:45 a.m.**

**Location: Marriott**

**Room: Franklin 11**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH

## **304 TI-73 Explorer™, TI-83 Plus and TI-84 Plus Silver Edition Graphing Calculators: Fantastic Instructional Tools for Grades 6 & 7 Common Core State Standards**

*TI-Navigator™ Classroom Learning System, TI-73 Explorer™ Graphing Calculator, TI-83 Plus Graphing Calculator, TI-84 Plus Silver Edition Graphing Calculator*

*Judy Wheeler, jmw.mathed@gmail.com, Bridgman, MI, USA*

The presenter will share several of her programs, games, lessons and teaching strategies she developed that align well with the Common Core content standards for Grades 6 and 7 and the Mathematical Practice Standards. The TI-73 Explorer™ Graphing Calculator will be used, but most all activities execute similarly on TI-83 Plus and TI-84 Plus Silver Edition graphing calculators. The TI-Nspire™ Navigator™ System will be used in the background, but most activities are not dependent up that technology. To cover more activities, this session blends some demonstration/lecture with hands-on engagement.

**9:45 a.m. - 10:45 a.m.**

**Location: Marriott**

**Room: Franklin 13**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH

## **305 Introducing Tricky Trig Functions Using the TI-Navigator™ Classroom Learning System**

*TI-Navigator™ Classroom Learning System, TI-84 Plus Silver Edition Graphing Calculator*

*Cindy Edwards, cindy.edwards2@vbschools.com, Princess Anne High School, Virginia Beach, VA, USA*

*Co-Presenter: Elizabeth Pugliese*

Using the TI-84 Plus Silver Edition Graphing Calculator in conjunction with the TI-Navigator™ Classroom Learning System, participants will discover the similarities and differences in trigonometric functions. We will explore the parameters of sine, cosine and tangent using activity center, quick poll, and screen capture. We will also analyze data of a sinusoidal curve and find the regression equation.

**9:45 a.m. - 10:45 a.m.**

**Location: Marriott**

**Room: Salon J**

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA II

## **306 Make Your Favorite Labs Nspired**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Jacklyn Bonneau, bonneau@wpi.edu, Mass Academy, North Grosvenordale, CT, USA*

Do you have a favorite lab that requires data collection and analysis? Come and see how easily that can be done on the TI-Nspire™ CAS Handheld. Vernier wrote the app so it is easy to use and translate from many of their labs, and it is easy to use to adapt to any lab.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 109 B**

*Seats: 60*

*60-Minute Lecture/Demonstration*

GENERAL SCIENCE

## 307 Integrating Math and Science Using TI-Nspire™ Technology

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Leann Iacuone, liacuone@lexrich5.org, Irmo, SC, USA*

*Co-Presenter: Colleen Booissinot*

Come and learn how a large suburban school district is using TI-Nspire™ Technology with math and science to promote real world, hands-on learning with middle school students. We will discuss how to provide professional development and engage teachers to implement new technology-based instructional strategies in their classroom. Our goal is to meet the ever changing educational demands of preparing students for jobs of the future.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 110 AB**

*Seats: 40*

*60-Minute Lecture/Demonstration*

ADMINISTRATOR

## 309 The TI-Nspire™ Navigator™ System Alongside You Didn't Teach Me This!

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Kara Leaman, idomath@comcast.net, Glenwood High School, Chatham, IL, USA*

*Co-Presenter: Kim Zeydel*

Explore how the TI-Nspire™ Navigator™ System can help build a collaborative learning community with at-risk and special-needs students. In addition, we will share how we incorporate formative and summative assessment with this population.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 112 A**

*Seats: 40*

*60-Minute Hands-On*

ASSESSMENT

## 310 Give Your Mathematics a Lift!

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Trevor Redmond, trevanni@bigpond.net.au, A.B. Paterson College, Gold Coast, AUSTRALIA*

In this session we will use TI-Nspire™ Lab Cradle and Vernier® force probe to collect data from air foils of various shapes generated using the TI-Nspire™ CAS Handheld. We will collect the data using TI-Nspire™ Navigator™ System and model the various relations that exit in the data and link it to the modern lift equation. This task can be differentiated so that it is applicable for students from lower junior through to upper secondary.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 112 B**

*Seats: 40*

*60-Minute Hands-On*

CALCULUS

## 311 Launching the TI-Nspire™ Navigator™ System and TI-Nspire™ Handheld in Biology Classrooms at Woodrow Wilson High School in Portsmouth, Virginia

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Cheryl Coronado, cheryl.coronado@pps.k12.va.us, Woodrow Wilson High School, Portsmouth, VA, USA*

Come investigate how biology teachers at Woodrow Wilson High School successfully incorporated using the TI-Nspire™ Navigator™ System, TI-Nspire™ Handheld and Vernier® probes into their classroom instruction. Discover through discussion how the implementation developed, how inquiry and assessments were done and our plans for the future.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 113 A**

*Seats: 80*

*60-Minute Hands-On*

BIOLOGY

## 312 AP\* Chemistry: Integrating TI-84 Plus Silver Edition Graphing Calculator and Probeware into AP\* Inquiry Labs

*TI-84 Plus Silver Edition Graphing Calculator*

*Jim Ealy, jle15@psu.edu, Penn State University – LV, Center Valley, PA, USA*

*Advance Placement Chemistry: The College Board has developed a 16-lab experiment requirement for AP\* Chemistry. Six of these labs must be inquiry. This session will demonstrate how to integrate the TI-84 Plus Silver Edition Graphing Calculator and probeware into the AP\* inquiry requirement. The presentation will include the AP\* format for inquiry labs.*

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 113 B**

*Seats: 80*

*60-Minute Lecture/Demonstration*

CHEMISTRY

## **313 Discovering Variation Within and Between Species Using the TI-84 Plus Silver Edition Graphing Calculator**

*TI-84 Plus Silver Edition Graphing Calculator*

*Peggy Welch, peggy.welch@jessamine.kyschools.us, Jessamine Career & Technology Center, Nicholasville, KY, USA*

Participants will measure leaf samples of the same species but different biomes to discover patterns of variation and adaptation. Data will be analyzed on the TI-84 Plus Silver Edition Calculator using box plots, histograms and linear regressions.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 113 C**

*Seats: 80*

*60-Minute Hands-On*

MIDDLE GRADES SCIENCE

## **314 Exploring Rates from Algebra to Calculus**

*TI-Nspire™ App for iPad®*

*Vicki Carter, West Florence High School, Timmonsville, SC, USA*

Explore the power of using TI-Nspire™ Technology for iPad® to develop student understanding of rates of change. In this session, participants will explore activities to help their students gain deeper understanding of rates of change. We will focus on the progression of skills from Algebra I to Calculus as well as the connection to the CCSS.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 114**

*Seats: 600*

*60-Minute Lecture/Demonstration*

GENERAL MATH

## **316 Creating a Collaborative Classroom Environment: TI-Nspire™ Activities on the Interactive Whiteboard**

*Deana Deichert, deana.deichert@desales.edu, DeSales University, Center Valley, PA, USA*

*Co-Presenter: Nathan Furman*

With the creation of the free TI-Nspire™ Document Player (powered by TI-Nspire™ Technology), teachers do not have to have access to classroom sets of calculators in order to use TI-Nspire™ Activities with their classes. Teachers can download the player and activities to their classroom computer at no cost and share the created activities with their classes. This free download exemplifies TI's mission to improve student learning for all children. With the added technology of interactive whiteboards, teachers can create learning stations for students to experience the activities in collaborative groups. Teaching strategies, sample activities and download instructions will be demonstrated.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 115 B**

*Seats: 80*

*60-Minute Hands-On*

TECHNOLOGY

## **317 Advanced Quantitative Reasoning: A Post-Algebra II Course Using the TI-Nspire™ CAS Handheld**

*Greg Foley, foleyg@ohio.edu, Ohio University, Athens, OH, USA*

Participants will experience rich problems and projects from a post-Algebra II alternative to Precalculus that is aligned with NCTM's Reasoning and Sense Making and the Common Core. These tasks have been classroom tested in technology-intensive learning environments focused on language, thinking and learning. The tasks connect modeling, discrete mathematics, geometry, probability and statistics, and they promote mathematical proficiency and quantitative literacy with college readiness as the aim.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 115 C**

*Seats: 80*

*60-Minute Lecture/Demonstration*

TECHNOLOGY

## **318 Teaching Beginner Programming Concepts with the TI-83 Plus and TI-84 Plus Silver Edition Graphing Calculators**

*TI-84 Plus Silver Edition Graphing Calculator*

*Christopher Mitchell, book@cemetech.net, New York, NY, USA*

For decades, graphing calculators have been a key tool assisting self-driven students in teaching themselves programming. The TI-Basic language available on the TI-83 Plus and TI-84 Plus Silver Edition graphing calculators is simple, fast and easy to write, yet teaches logic and critical thinking skills necessary for almost any programming language. This session will introduce some of these skills as taught in the speaker's book, *Programming the TI-83 Plus/TI-84 Plus*, and will motivate the pedagogical value of encouraging your students to pursue graphing calculator programming.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 116**

*Seats: 80*

*60-Minute Lecture/Demonstration*

PROGRAMMING

## 319 TI-Nspire™ CAS Handheld Activities for Calculus and Vectors

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Paul Alves, paul.alves@peelsb.com, Fletcher's Meadow Secondary School, Brampton, ON, CANADA*

University-bound students in Ontario, Canada, usually take a course called Calculus and Vectors. The course is a combination of differential calculus, geometric and algebraic vectors. This session will look at activities for the TI-Nspire™ CAS Handheld created to support the expectations in this course.

**11:00 a.m. - 12:00 p.m.**

**Location:** Convention Ctr.

**Room:** 117

*Seats: 80*

*60-Minute Hands-On*

CALCULUS

## 321 Picture Time with the TI-Nspire™ Handheld

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Andi Parr, aparr@esc12.net, Temple, TX, USA*

Bring your TI-Nspire™ Handheld and come explore the possibilities when you incorporate pictures into your instruction using TI-Nspire™ Technology. We will build .tns files with pictures that engage and build the content knowledge of your students. Come ready to have a great time and to use pictures as something more than just a graphic for looks.

**11:00 a.m. - 12:00 p.m.**

**Location:** Convention Ctr.

**Room:** 118 B

*Seats: 80*

*60-Minute Hands-On*

GENERAL MATH

## 322 Rich Tasks for the TI-Nspire™ Handheld

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Max Ray, max@mathforum.org, Philadelphia, PA, USA*

*Co-Presenter: Heidi Rudolph*

The Math Forum has worked with Texas Instruments to provide a free sample of our *Problems of the Week* that feature the TI-Nspire™ Technology capabilities. Each activity has a downloadable .tns file for students to work with, as well as a packet for the teacher discussing the math, problem-solving and TI-Nspire™ Handheld use. Each packet also includes possible answers to each key question in the Nspire™ File. In this workshop we'll explore some of the existing packets, discuss their resources and work together to generate sample solutions for the newest *TI Problem of the Week*.

**11:00 a.m. - 12:00 p.m.**

**Location:** Convention Ctr.

**Room:** 118 C

*Seats: 80*

*60-Minute Hands-On*

GENERAL MATH

## 323 Your TI-84 Plus C Silver Edition Graphing Calculator Classroom: Preparing and Presenting Using TI Connect™ Software, TI-SmartView™ Emulator Software and More

*TI-84 Plus C Silver Edition Graphing Calculator*

*Margo Mankus, margo.mankus@ti.com, Beacon, NY, USA*

Experience how to create your customized classroom using TI-84 Plus C Silver Edition Graphing Calculator features and computer software from the classroom solution. Use TI Connect™ Software to help manage calculator files and TI-SmartView™ Emulator Software for the TI-84 Plus Family for your presentations to enhance learning.

**11:00 a.m. - 12:00 p.m.**

**Location:** Convention Ctr.

**Room:** 119 A

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA I

## 324 Quick Polls, Documents and Pages, Oh my! Get Nspired to Learn About Daily TI-Nspire™ Navigator™ System Use

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Kari Craddock, kari.craddock@swcs.us, Franklin Heights High School, Columbus, OH, USA*

This session is intended to familiarize attendees with basic functions of the TI-Nspire™ Teacher Software such as creating, sending and receiving documents, inserting different types of pages, creating quick polls, inserting pictures and utilizing the student portfolio to increase student involvement and engagement. In addition to navigating the teacher software attendees will also act as the student in order to better understand what the described features look like on student calculator screens.

**11:00 a.m. - 12:00 p.m.**

**Location:** Convention Ctr.

**Room:** 119 B

*Seats: 60*

*60-Minute Hands-On*

GENERAL MATH



## 325 Exploring Geometry Transformations and Sliders

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Martin Sanchez, m-sanchez@ti.com, Pearland, TX, USA*

*Co-Presenter: Christopher Langhorn*

This session will explore the geometry transformations menu as we build dynamic activity lessons. Participants will have the opportunity to work with the TI-Nspire™ Navigator™ System teacher software to create dynamic activity lessons. Join us as we experience TI-Nspire™ Technology to enhance student understanding of concepts.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 120 A**

*Seats: 80*

*60-Minute Hands-On*

GEOMETRY

## 327 Beyond Rote: Using the TI-Nspire™ Navigator™ System for Rich, Higher-level Assessment in Algebra I

*Lisa Simonick, lisa.simonick@powhatan.k12.va.us, Powhatan County Public Schools, Midlothian, VA, USA*

The TI-Nspire™ Navigator™ System can be a powerful tool for developing rich, higher-level assessment. In this session we will go beyond multiple choice to show how TI-Nspire™ Technology can be used to assess deeper understandings of Algebra I concepts when implementing standards based mathematics instruction. Emphasis will be given for use of this technology with economically disadvantaged students and students with disabilities.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 120 C**

*Seats: 80*

*60-Minute Lecture/Demonstration*

ALGEBRA I

## 328 CCSS and the TI-Nspire™ Handheld

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Michael Houston, michaelhouston33@me.com, Riverside High School, Cranberry Township, PA, USA*

How can the TI-Nspire™ Handheld help you teach with the Common Core State Standards in your classroom? This session will explore activities and teaching strategies, specifically in Algebra where graphing technology can make your teaching more effective with less work.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 121 A**

*Seats: 80*

*60-Minute Hands-On*

ALGEBRA I

## 329 Hidden Gem: Question Application in the TI-Nspire™ Teacher Software

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ Teacher Software*

*Rodney Anderson, andersonr@mbc.qld.edu.au, Moreton Bay College, Wynnum, AUSTRALIA*

TI-Nspire™ Teacher Software has a Question application that enables you to compile digital questions that are easy to create. These files can be distributed to students via a docking station or by the TI-Nspire™ Navigator™ System. Learn how to insert images into questions, and how to create true/false, multi-choice, chemistry questions and so much more. These questions can be self-check or be in exam mode. Combined with the TI-Nspire™ Navigator™ System, you can use the Review and Portfolio sections to analyze student responses and check for student understanding.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 121 B**

*Seats: 80*

*60-Minute Hands-On*

TECHNOLOGY

## 330 Visual 3D Geometry with the TI-Nspire™ CAS Handheld

*Bjørn Felsager, bjoern.felsager@skolekom.dk, Haslev, DENMARK*

I will present a 3D geometry library called *Geo3D for TI-Nspire™ CAS Handheld* that will allow the user to construct geometrical objects like lines, vectors, spheres, boxes etc. in the 3D Graphing application. The package also includes standard commands for measurements and transformations in 3D Geometry. Using this package will make it possible to construct animations using 3D geometrical objects and thus illustrate many simple situations in 3D geometry. Examples will be shown including spherical geometry and 4-dimensional geometrical objects unfolded or projected into 3-dimensional space.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 121 C**

*Seats: 60*

*60-Minute Lecture/Demonstration*

GEOMETRY



## 331 Graphical Representation for the Statistical Interpretation of Data

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Rafael Canales-Pastrana, rrcanales@gmail.com, Carolina, PR, USA*

During the workshop, the participants will work on the different graphical representation provides on the TI-Nspire™ Handheld. The analysis will be performed with data relevant to the participant. After each graphical representation of each data set, a statistical interpretation and a comparison between different possible representations will be performed.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 122 A**

*Seats: 60*

*60-Minute Lecture/Demonstration*

STATISTICS

## 332 SAT® Math Prep, the TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System: Inching Closer to 800

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Anthony Record, ajrecord@avon-schools.org, Avon High School, Avon, IN, USA*

This session will assist teachers in developing and organizing the vast amount of SAT® Math content that can be used in either a curricular or co-curricular setting. Special emphasis will be placed upon the use of TI-Nspire™ CAS Handheld and TI-Nspire™ Navigator™ System to enhance students' understanding of the various test-taking tactics they should know before taking the SAT® exam. In addition, we will break down the 18 content-specific areas that encompass the Math section of the SAT® exam.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 122 B**

*Seats: 160*

*60-Minute Lecture/Demonstration*

GENERAL INTEREST

## 333 Analyzing Classroom Temperature with TI-Nspire™ Technology

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Jeff Corn, jcorn@madeiracityschools.org, Madeira High School, Cincinnati, OH, USA*

In August, temperature probes connected to TI-Nspire™ CAS Handhelds were placed in classrooms without air conditioning for an entire school day. Come find out our interesting results. Classroom tested activities will be shared. Beginners welcome.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 123**

*Seats: 80*

*60-Minute Hands-On*

ALGEBRA II

## 334 Making Math Out of March Madness

*TI-Nspire™ CX Handheld*

*Jennifer Axley, jennifer.axley@blountk12.org, Maryville, TN, USA*

*Co-Presenter: Donna Russell*

March is the time when basketball fans turn their thoughts to bracketology. We will use the TI-Nspire™ Handheld to explore how data from the NCAA basketball tournament's single elimination format may be used to model exponential and piecewise functions. Because students begin to plot data and explore relationships between two variables in middle school, this session is also applicable to middle grades mathematics as well as Algebra I.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 124**

*Seats: 80*

*60-Minute Hands-On*

ALGEBRA II

## 335 Animated Activities with TI-Nspire™ Technology that Capture the Spirit of the Common Core State Standards for Algebra II

*TI-Nspire™ CX CAS Handheld*

*Brendan Kelly, bkelly10@cogeco.ca, University Of Toronto, Toronto, ON, CANADA*

This presentation will showcase the teaching of Algebra II using the TI-Nspire™ CX CAS Handheld. Exciting applications of rational expressions, trigonometry, exponential and log functions and statistics will be shared. DVDs and books containing TI-Nspire™ Activities will be given as prizes. Handouts with full documentation of the activities and a website for free .tns files will be provided.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 125**

*Seats: 80*

*60-Minute Hands-On*

ALGEBRA II

## 336 Embracing STEM Project-Based Learning and TI-Nspire™ Technology

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Gustavo Perez, gperez@esc1.net, Edinburg, TX, USA*

STEM Education continues to drive national policy as an economic imperative for the United States. Join this session to receive a model lesson using a framework for delivering Project-Based Lessons that target significant content standards while ensuring innovation, creativity and entrepreneurship among students.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 126 A**

*Seats: 180*

*60-Minute Hands-On*

GENERAL INTEREST

## 337 Approximation of Functions with the TI-Nspire™ CAS Handheld

*TI-Nspire™ CX CAS Handheld*

*Jose Luis Espinosa Reina, jlespinosa73@gmail.com, Universidad Santo Tomas, Bogota D.C., COLOMBIA*

*Co-Presenter: Juana Yadira Martin Perico*

In several applications, it is necessary to approximate a given function in a more agreeable form. The study of the approximation of functions theory encompasses two general types of problems. The first type of problem is to find a simpler form of an explicit function. For example, a polynomial can be used to represent the values of a given function within a certain interval, always taking into consideration the value of the error in the approximation. The second type of problem is the search of an optimal function that can be used to represent a set of data. The intention of this work is to provide a computational method for the approximation of functions and generate educational resources that use the technology provided by our TI-Nspire™ CAS Handheld.

**11:00 a.m. - 12:00 p.m.**

**Location: Convention Ctr.**

**Room: 126 B**

*Seats: 60*

*60-Minute Hands-On*

PRECALCULUS

## 338 Fun Stat Activities to Use with your TI-84 Plus C Silver Edition Graphing Calculator

*TI-84 Plus C Silver Edition Graphing Calculator*

*Sharon Cichocki, scichock@buffalo.edu, Hamburg High School, Hamburg, NY, USA*

Hands-on stat activities that encourage class participation and learning on the TI-84 Plus C Silver Edition Graphing Calculator.

**11:00 a.m. - 12:00 p.m.**

**Location: Marriott**

**Room: Franklin 1**

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA II

## 340 The TI-84 Plus Silver Edition Graphing Calculator and TI-Navigator™ Classroom Learning System in the Precalculus Classroom

*TI-Navigator™ Classroom Learning System, TI-84 Plus Silver Edition Graphing Calculator*

*Jan Mitchener, jmitchen@ccs.k12.in.us, Carmel High School, Carmel, IN, USA*

Experience my favorite Precalculus TI-84 Plus Silver Edition Graphing Calculator activities that I use in my classroom. Activities will be ready to use in the classroom. The TI-Navigator™ Classroom Learning System will also be used.

**11:00 a.m. - 12:00 p.m.**

**Location: Marriott**

**Room: Franklin 4**

*Seats: 60*

*60-Minute Hands-On*

PRECALCULUS

## 341 Modeling Algebraic Structures with CAS

*AI Cuoco, acuoco@edc.org, Waltham, MA, USA*

Common Core talks about the structural similarities between integers and polynomials. The recently released CBMS report on teacher preparation and professional development calls for courses in abstract Algebra and number theory that emphasize these same similarities. CAS is an ideal tool with which to build computational models of Algebraic structures and models that make these and other similarities explicit. We'll work through several examples of such model building, showing how the use of technology can help make important ideas from higher Algebra concrete and more tractable to a wider audience, including in some cases, advanced high school students.

**11:00 a.m. - 12:00 p.m.**

**Location: Marriott**

**Room: Franklin 5**

*Seats: 60*

*60-Minute Lecture/Demonstration*

CAS

## 342 Kilts and CAS in both Canada and Scotland

*TI-Nspire™ CX CAS Handheld*

Nevil Hopley, [nevil@calculatorsoftware.co.uk](mailto:nevil@calculatorsoftware.co.uk), George Watson's College, Edinburgh, UNITED KINGDOM

Co-Presenter: Fred Ferneyhough

Nevil Hopley and Fred Ferneyhough have both been using CAS in their Mathematics teaching for many years in Scotland and Canada, respectively. What is done the same and what is done differently? This session will be an international mind-meld of teaching techniques, content emphasis and equivalent mathematical terminology when using CAS to teach a wide spectrum of topics to an even wider range of student ages and abilities.

**11:00 a.m. - 12:00 p.m.**

**Location: Marriott**

**Room: Franklin 6**

Seats: 60

60-Minute Hands-On

CAS

## 343 Exploring Dynamic CAS for Sense-Making and Reasoning

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ Lab Cradle*

Lewis Lum, [lum@up.edu](mailto:lum@up.edu), University of Portland, Portland, OR, USA

Co-Presenter: Tom Dick

The integration of Computer Algebra System symbolic manipulation features with the spreadsheet and math boxes on TI-Nspire™ CAS Handheld open up new opportunities to move CAS from a black box to a white box. Dynamically updated expressions hold the potential to reveal not only patterns but also structure. We will draw on exemplars that were developed for the NCTM's volume on *Technology in Support of Sense Making and Reasoning*.

**11:00 a.m. - 12:00 p.m.**

**Location: Marriott**

**Room: Franklin 7**

Seats: 60

60-Minute Hands-On

CAS

## 344 Is There a Better Way to Introduce Algebra for CAS?

Ray Williams, [rwilliams@stmarks.wa.edu.au](mailto:rwilliams@stmarks.wa.edu.au), St. Mark's Anglican Community School, Perth, AUSTRALIA

This session presents results and ideas developed over a number of years experimenting with a different way to introduce Algebra to Year 8 students. The focus is the impact of the CAS facility on how students might both learn and understand Algebraic concepts. The aim is to provide a possible alternative method that might better align with student thinking and assist them to understand the way CAS interprets Algebra.

**11:00 a.m. - 12:00 p.m.**

**Location: Marriott**

**Room: Franklin 8**

Seats: 60

60-Minute Lecture/Demonstration

CAS

## 345 Teaching in an Electronic Age

Stephen Vallette, [svallette@cairn.edu](mailto:svallette@cairn.edu), Cairn University, Langhorne, PA, USA

With CAS calculators, hand-held electronic devices and internet access, students are demonstrating a need and an interest in alternate approaches to their math classes. This discussion explores the changing effects of student access to CAS and the implication for teaching and content.

**11:00 a.m. - 12:00 p.m.**

**Location: Marriott**

**Room: Franklin 9**

Seats: 60

60-Minute Lecture/Demonstration

CAS

## 347 Mr. Magoo's Murder: The TI-84 Plus Silver Edition Graphing Calculator

*TI-84 Plus Silver Edition Graphing Calculator*

Leann Rains, [tiffany.rains@go.tarleton.edu](mailto:tiffany.rains@go.tarleton.edu), Tarleton State University, Stephenville, TX, USA

Co-Presenter: Jancie Bateman

Mr. Magoo was a successful, wealthy businessman who would sell his own mother just to make a buck. It was no surprise when Magoo was found shot. But who killed Mr. Magoo? A disgruntled employee? His own brother? In this session, we will use TI-84 Plus Silver Edition Graphing Calculator to solve the mystery. Attendees will leave with an integrated math and science lesson plan.

**11:00 a.m. - 12:00 p.m.**

**Location: Marriott**

**Room: Franklin 11**

Seats: 60

60-Minute Hands-On

MIDDLE GRADES MATH

## **348 Picture This: Calculating Perimeter and Area Using Images of Real-life Objects and TI-Nspire™ Technology**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Mayra Chao, mayra.chao@ti.com, Brownsville, TX, USA*

In this session, participants will discover how the use of the TI-Nspire™ CX Handheld can help students understand the concept of perimeter and area by applying it to real-life objects.

**11:00 a.m. - 12:00 p.m.**

**Location: Marriott**

**Room: Franklin 12**

*Seats: 60*

*60-Minute Hands-On*

MIDDLE GRADES MATH

## **349 Exploring Points of Concurrency in the TI-84 Plus Silver Edition Graphing Calculator Using Simple Programs**

*TI-84 Plus Silver Edition Graphing Calculator*

*Edsel Baker, edsel.baker@missourimilitaryacademy.com, Missouri Military Academy, Mexico, MO, USA*

Using a simple program, the different points of concurrency will be explored. These points can be explored easily with the TI-Nspire™ Technology, but only if it is available, and the TI-84 Plus Silver Edition Graphing Calculator, though teaching the Cabri™ Jr. in the calculator can be time consuming. Using simple programs, the time to complete the manual calculations to find different points of concurrency can be reduced. These programs can be used to direct students' focus to the more salient ideas in this topic and on their own aid in teaching the manual steps.

**11:00 a.m. - 12:00 p.m.**

**Location: Marriott**

**Room: Franklin 13**

*Seats: 60*

*60-Minute Hands-On*

GEOMETRY

## **350 Fun with Functions and the TI-84 Plus Silver Edition Graphing Calculator**

*TI-84 Plus Silver Edition Graphing Calculator*

*Reva Narasimhan, rnarasim@kean.edu, Kean University, Westfield, NJ, USA*

Learn how to have fun with functions by using in-class activities that make this abstract topic much more concrete. Participants will be engaged in a variety of hands-on activities which model different types of functions. Activities include modeling linear functions through knitting patterns and cell phone plans, using area models for exploring quadratic functions and simulating exponential decay with M&M's.® Attendees will gain a greater appreciation of the importance of functions and their connections. Handouts will be provided.

**11:00 a.m. - 12:00 p.m.**

**Location: Marriott**

**Room: Salon J**

*Seats: 60*

*60-Minute Lecture/Demonstration*

ALGEBRA II

## **351 Integrating TI-Nspire™ Technology Into the Science Classroom**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Louise Chapman, lchapman@volusia.k12.fl.us, Deland, FL, USA*

*Co-Presenter: Judy Day*

Integrate TI-Nspire™ Technology into classroom topics related to human impact and interdependence that could relate to biology, environmental science and physical science. Activities would include using pH, temperature, salinity, soil humidity and other related sensors to link field activities to classroom labs.

**1:00 p.m. - 2:00 p.m.**

**Location: Convention Ctr.**

**Room: 109 B**

*Seats: 60*

*60-Minute Hands-On*

GENERAL SCIENCE

## **353 Science and Math Integrated with Just a Little Common Sensors**

*TI-Nspire™ CX CAS Handheld*

*Jeff Lukens, jeffrey.lukens@k12.sd.us, Roosevelt High School, Sioux Falls, SD, USA*

Science and math are a natural for integration. We just don't do enough of it in the high school setting. In this completely hands-on session, you will experience how fun, easy and powerful curriculum integration can be.

**1:00 p.m. - 2:00 p.m.**

**Location: Convention Ctr.**

**Room: 111 B**

*Seats: 60*

*60-Minute Hands-On*

GENERAL SCIENCE

## 354 Assessments Using the TI-Nspire™ Navigator™ System: Go Paperless

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Mary A. Brese, t3mbrese@gmail.com, Brink Junior High, Harrah, OK, USA

The TI-Nspire™ Navigator™ System allows you to use question pages individually or within a file, to send them to students and to collect results. The results can be displayed for class assessment and remediation or recorded for grades; most question pages are graded immediately. After collecting results, you can save them in students' personal portfolios for individual analysis or edit students' grades. Learn how to use quick poll questions to analyze where homework will need to be reviewed, to get immediate assessment and feedback during lesson activities and for testing. It is possible to do most assessments completely paperless.

1:00 p.m. - 2:00 p.m.

Location: **Convention Ctr.**

Room: **112 A**

Seats: 40

60-Minute Hands-On

ASSESSMENT

## 355 Just the Stats, Ma'am, Using TI-Nspire™ Technology

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Kelly Soule, kathyrn.soule@lowndes.k12.ms.us, New Hope High School, Columbus, MS, USA

Co-Presenter: Lindsay Miller

Statistics is an integral part of the world around us and an easy way to show students real-world, relevant content in any mathematics curriculum. Focusing on the use of the TI-Nspire™ Handheld and TI-Nspire™ Navigator™ System for exploring data, this session will showcase the use of the built-in statistics functions, including creating different graphical representations.

1:00 p.m. - 2:00 p.m.

Location: **Convention Ctr.**

Room: **112 B**

Seats: 40

60-Minute Hands-On

STATISTICS

## 356 Get Nspired with Inquiry

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Dina Dormer, ddormer@wssd.org, Strath Haven High School, Wallingford, PA, USA

Using TI-Nspire™ CAS Handhelds, participants will explore the connection of science and math through inquiry activity. Participants will be asked to design their own experiments given a list of materials, and then we will explore how to best utilize the TI-Nspire™ Technology to perform data collection and analysis. This will be a hands-on session in which actual (safe) experiments will be performed so that the data can be directly correlated to the experience of the lab.

1:00 p.m. - 2:00 p.m.

Location: **Convention Ctr.**

Room: **113 A**

Seats: 80

60-Minute Hands-On

CHEMISTRY

## 357 Chemistry Concepts Come Alive Through Demonstrations in the Classroom Using the TI-84 Plus Silver Edition Graphing Calculator and Sensor

TI-84 Plus Silver Edition Graphing Calculator

Julie B. Ealy, jbe10@psu.edu, Penn State University – Lehigh Valley, Center Valley, PA, USA

The TI-84 Plus Silver Edition Graphing Calculator, with the help of sensors, can be used to teach chemistry concepts through integration into the chemistry classroom. Concepts such as calorimetry, kinetics, oxidation/reduction and equilibrium will be addressed.

1:00 p.m. - 2:00 p.m.

Location: **Convention Ctr.**

Room: **113 B**

Seats: 80

60-Minute Lecture/Demonstration

CHEMISTRY

## 358 Going Trig-less: Using the TI-Nspire™ Handheld for Graphical Vector Resolution

TI-Nspire™ CX Handheld

Shawn Schlueter, Sschlueter@esc14.net, Abilene, TX, USA

Shifting standards in math and science and increasing numbers of students taking high school physics concurrently with Algebra II make the TI-Nspire™ Handheld a powerful tool to solve 2D vector problems traditionally seen on standardized testing without the use of trigonometry. This is not intended to replace proper mathematical instruction, and you will leave the session with a series of steps to teach struggling students graphical vector resolution using the handheld's powerful geometry tools.

1:00 p.m. - 2:00 p.m.

Location: **Convention Ctr.**

Room: **113 C**

Seats: 80

60-Minute Hands-On

PHYSICS



## 359 Hands-on, Minds-on Science on the iPad®

*TI-Nspire™ App for iPad®*

*Ray Lesniewski, Jones College Prep, Chicago, IL, USA*

What do light bulbs, roller coasters and green leaves have in common? They're all found in simulations that run on the new TI-Nspire™ App for iPad®. Come to this session to learn how students can take an active role in learning difficult science concepts utilizing the iPad® touchscreen capabilities. We will explore a number of Biology, Chemistry and Physics simulations from the Science NSpired Resource Center. In addition, we'll take a look at how the app's spreadsheet, graphing, calculator and self-check assessment features can be used to tackle concepts such as accuracy and precision, density and phase changes. Come see how TI-Nspire™ Technology and free activities come to life on this new platform.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 114

*Seats: 600*

*60-Minute Lecture/Demonstration*

GENERAL SCIENCE

## 361 Trigonometry Word Problem Using the TI-Nspire™ Navigator™ System

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Scott Washburn, scott\_washburn@redlands.k12.ca.us, Redlands East Valley High School, Redlands, CA, USA*

We will be looking at the classic ocean tide word problem and answering questions related to that situation. A brief lesson on phase shift, vertical shift, amplitude and frequency regarding Trigonometry will be included. The TI-Nspire™ Handheld and TI-Nspire™ Navigator™ System, specifically the live presenter feature, will be utilized during this lesson/action-consequence activity.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 115 B

*Seats: 80*

*60-Minute Hands-On*

TECHNOLOGY

## 362 Infusing Reasoning and Sense-Making Using TI-Nspire™ Technology

*Dan Ilaria, dilaria@wcupa.edu, West Chester University, Chester Springs, PA, USA*

This session will examine common shortcuts in mathematics that hinder student learning. We will discuss how to use graphing technology to foster reasoning and sense-making about key mathematical topics into the mathematics classroom.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 115 C

*Seats: 80*

*60-Minute Lecture/Demonstration*

TECHNOLOGY

## 364 Using the TI-Nspire™ CAS Handheld in AP\* Calculus

*TI-Nspire™ CX CAS Handheld*

*Lisa Conzemius, zemi@arvig.net, Detroit Lakes High School, Detroit Lakes, MN, USA*

Participants will learn how the TI-Nspire™ CAS Handheld has been beneficial in AP\* Calculus. They will learn how to use the calculator for things needed in calculus and also my favorite pre-made calculus files will be shared. Beginners will be able to participate in this session.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 117

*Seats: 80*

*60-Minute Hands-On*

CALCULUS

## 365 Flipping out over Flipbooks: Make an Nspiring Math Movie with Music and Fun

*Elizabeth Haskins, cokerea@hotmail.com, Indian River High School, Virginia Beach, VA, USA*

*Co-Presenter: Sherri Abel*

Tired of the same old, same old? Come see how to engage students in the learning of math through this unique, hands-on project. Participants will be involved in the creation of an interactive video using a camera, TI-Nspire™ Technology, and free movie maker software.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 118 A

*Seats: 80*

*60-Minute Lecture/Demonstration*

GENERAL MATH



## 366 Your Golden Measurements

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Deobra Solomon, mathiscool\_chick@yahoo.com, Sparks, NV, USA

Participants will use measuring tapes to estimate the length of various body parts. They will submit their findings via the TI-Nspire™ Navigator™ System. The data will be aggregated and returned via the same system. Slope and line of best fit will be analyzed to find the Golden Ratio. They will then look at examples in the real world.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 118 B

Seats: 80

60-Minute Hands-On

GENERAL MATH

## 367 Reaching All Learners with TI-Nspire™ Technology: How to Tackle the Common Core State Standards for Mathematical Practice in a Diverse Classroom

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Pamela Baker, pamelabaker@fayar.net, Fayetteville High School, Fayetteville, AR, USA

Learn how all students, including Special Education and English as a Second Language learners, have excelled in my Geometry and Algebra II classrooms using the TI-Nspire™ Handheld and TI-Nspire™ Navigator™ System. Specific classroom activities that engaged all students in the Common Core State Standards for Mathematical Practices will be shared.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 118 C

Seats: 80

60-Minute Lecture/Demonstration

GENERAL MATH

## 369 Earth Science Nspired

TI-Nspire™ CX CAS Handheld

Tami Plein, tplein@netzero.net, Great Prairie Area Education Agency, Burlington, IA, USA

Come and explore some of the new Science Nspired lessons and tools available online to help you guide your students to understanding key Earth Science concepts. The Ring of Fire, Stream Erosion, and Earth's Seasons are just a few of the modules available. Several lessons will be demonstrated with lots of time to explore using the TI-Nspire™ Technology and Teacher Software.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 119 B

Seats: 60

60-Minute Hands-On

MIDDLE GRADES SCIENCE

## 370 The TI-Nspire™ Navigator™ NC System and Google Docs™: a Perfect Pair

TI-Nspire™ Navigator™ NC System

Melfried Olson, melfried@hawaii.edu, University of Hawaii, Honolulu, HI, USA

The TI-Nspire™ Navigator™ NC System facilitates interactive learning by connecting student and teacher computers in the classroom. Because the system works regardless of which applications or files the teacher sends, it can also be used with Google Docs™. Research demonstrates that learners can gain from technology use in mathematics, but evidence suggests that the determining factor is how the teacher structures the learning environment. The combination of high-demand cognitive tasks, pedagogical techniques focused on students' thinking and appropriate technology help to ensure high quality mathematics instruction. Video examples of classroom instruction where this has successfully taken place will be shared.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 120 A

Seats: 80

60-Minute Hands-On

MIDDLE GRADES MATH

## 371 Enhancing Student Understanding Through TI-73 Explorer™ Graphing Calculator Applications

TI-73 Explorer™ Graphing Calculator

Causaundra Bradley, causonny@yahoo.com, Saint Benedict at Auburndale, Cordova, TN, USA

Focus and hands-on exploration of TI-73 Explorer™ Graphing Calculator applications that support for Common Core implementation.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 120 B

Seats: 80

60-Minute Hands-On

ALGEBRA I

## **372 Using TI-Nspire™ Technology to Easily Create Parallel Tasks for Your Algebra Students**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Kimberly Tarnowieckyi, ktarnowi@cloverpark.k12.wa.us, Lakes High School, Dupont, WA, USA*

*Co-Presenter: Julie Dansby*

Parallel task or tiered assignments created at varied levels of difficulty are powerful vehicles for differentiating and engaging students. TI-Nspire™ Activities for Algebra I classes that are ideal for offering differentiated sense-making for students in mixed-ability classrooms will be shared. The TI-Nspire™ Handheld and TI-Nspire™ Navigator™ System will be used to show how easy it is to create and share parallel tasks out to your students to help them work to their best level and to own their learning.

**1:00 p.m. - 2:00 p.m.**

**Location: Convention Ctr.**

**Room: 120 C**

*Seats: 80*

*60-Minute Hands-On*

ALGEBRA I

## **373 Fish Tales: Mathematical Modeling with the TI-Nspire™ Handheld**

*TI-Nspire™ CX Handheld*

*Elizabeth Gasque, Charleston, SC, USA*

The Common Core State Standards for Mathematics include an emphasis on mathematical modeling. Data modeling activities can provide opportunities for students to develop and interpret functions in real contexts. In this session, we'll explore data collected by scientists who sample fish populations to evaluate the condition and status of populations and to estimate growth and mortality rates. The TI-Nspire™ Handheld will be used to graph data, fit models and investigate trends for salmon, trout, red drum and largemouth bass.

**1:00 p.m. - 2:00 p.m.**

**Location: Convention Ctr.**

**Room: 121 A**

*Seats: 80*

*60-Minute Hands-On*

ALGEBRA I

## **374 TI-Nspire™ Technology for Beginner Geometry Teachers**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Rachael Gorsuch, rachael.gorsuch@gmail.com, Teays Valley High School, Ashville, OH, USA*

*Co-Presenter: John Ashurst*

In this session, attendees will gain experience and ideas for use in Geometry classrooms. The session will be taught by a current geometry teacher who is incorporating the TI-Nspire™ Technology for the first time into everyday lessons to enhance learning and extend thinking. The presenter will share her experiences of how she started using TI-Nspire™ Technology in her own classroom. Focus will be placed on using the technology as a springboard for getting students to discuss applications and extensions of geometry concepts.

**1:00 p.m. - 2:00 p.m.**

**Location: Convention Ctr.**

**Room: 121 B**

*Seats: 80*

*60-Minute Hands-On*

GEOMETRY

## **375 Old School Geometry on a New School Device**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Johnny Ashurst, johnny.ashurst@gmail.com, Harlan High School, Harlan, KY, USA*

No static geometry here! This is the amazing world of dynamic geometry. Geometric constructions, transformations, nets and theorem development are driven by old-school geometry dialogue while using new-school TI-Nspire™ Technology.

**1:00 p.m. - 2:00 p.m.**

**Location: Convention Ctr.**

**Room: 121 C**

*Seats: 60*

*60-Minute Hands-On*

GEOMETRY

## **376 Helping Students Reach Statistics: Using TI-Nspire™ Technology to Incorporate Statistics throughout Mathematics**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Timothy Barnes, timothy.barnes@powhatan.k12.va.us, Powhatan High School, Powhatan, VA, USA*

*Co-Presenter: Jarrod Lisker*

This hands-on session is geared for high school mathematics teachers that are looking for ways to integrate TI-Nspire™ Technology and Statistics throughout the high school mathematics curriculum.

**1:00 p.m. - 2:00 p.m.**

**Location: Convention Ctr.**

**Room: 122 A**

*Seats: 60*

*60-Minute Hands-On*

STATISTICS

## 378 Rats, it's Time to Teach Rationals: Meet Mathematical Practice #7

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Andrew Benzing, abenzin@wssd.org, Strath Haven High School, Wallingford, PA, USA*

Come and experience a constructive approach to graphing rational functions that makes sense of the structure of the function (CCSS Mathematical Practice #7). The TI-Nspire™ CAS Handheld will be used to analyze various rational functions. Beginners welcome. You will never teach rational functions the same.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 123

*Seats: 80*

*60-Minute Hands-On*

ALGEBRA II

## 379 Stations in Secondary Math? How TI-Nspire™ Technology can Differentiate Your Classroom

*TI-Nspire™ CX Handheld*

*Toni Norrell, toni.norrell@esc2.us, Corpus Christi, TX, USA*

Stations, or centers, have been limited to the elementary classroom. Come see how to set up stations in the secondary math classroom and use TI-Nspire™ Activities to differentiate and reinforce concepts.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 124

*Seats: 80*

*60-Minute Hands-On*

ALGEBRA II

## 381 Tips and Tricks with the TI-Nspire™ Navigator™ System and Software

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Joseph Rodriguez, josephrodriguez@ti.com, Dallas, TX, USA*

*Co-Presenter: Keith Sargent*

New to TI-Nspire™ Technology? Ever want to know how to do that one specific thing faster? If so, this is the session for you! The TI-Cares™ Customer Assistance staff will cover troubleshooting and other tips and tricks learned after working with the product and customers for several years. We will focus around the TI-Nspire™ Navigator™ System and software as well as the TI-Nspire™ Handhelds and TI-Nspire™ CAS Handhelds. We will go over common questions and tips for the first 40 minutes of the session followed by 20 minutes of Q&A from the audience.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 126 A

*Seats: 180*

*60-Minute Lecture/Demonstration*

GENERAL INTEREST

## 382 Making a Rainbow of Colors: Probing with pH, Temperature and TI-Nspire™ Technology

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Kimberly Reese, kreee@pennridge.org, Pennridge High School, Perkasi, PA, USA*

*Co-Presenter: Carrie Wilson*

This session is designed to engage your students while connecting chemistry to Algebra and calculus applications through the neutralization of milk of magnesia with acid while producing a full rainbow of colors. Students are sure to love the demonstration while learning about rate of change, slope and graphical analysis. Participants will use the TI-Nspire™ CAS Handheld, and Vernier® pH and temperature probes to analyze the logistic function generated by neutralizing acids and bases. We will use the real-world data produced by the experiment to determine the horizontal asymptotes and rates of change at different points in time. The TI-Nspire™ Navigator™ System will be utilized to compare and assess participant results in both the experiment and the pre- and post-test questions.

**1:00 p.m. - 2:00 p.m.**

**Location:** Convention Ctr.

**Room:** 126 B

*Seats: 60*

*60-Minute Hands-On*

PRECALCULUS

## 383 Middle School Activities Using the TI-84 Plus C Silver Edition Graphing Calculator

*TI-84 Plus C Silver Edition Graphing Calculator*

*Fred Decovsky, fdecovsky@aol.com, Millburn, NJ, USA*

This hands-on session will feature calculator activities aligned with the Common Core Standards and will support middle school math instruction. Topics will include multiple representations of data, graphing, fraction computations, solving equations and much more. A demonstration of several apps and programs will also be provided.

**1:00 p.m. - 2:00 p.m.**

**Location:** Marriott

**Room:** Franklin 1

*Seats: 60*

*60-Minute Lecture/Demonstration*

MIDDLE GRADES MATH

## **384 Bright Colors and More: See What the TI-84 Plus C Silver Edition Graphing Calculator Can Do**

*TI-84 Plus C Silver Edition Graphing Calculator*

*John LaMaster, Indiana Purdue University – Fort Wayne, Fort Wayne, IN, USA*

The TI-84 Plus C Silver Edition Graphing Calculator is not just brighter. It's even easier to use. Through hands-on classroom activities, see its new and updated features that can help your students meet the Common Core State Standards and transform how you teach. You may never want to go back to monochrome again.

**1:00 p.m. - 2:00 p.m.**

**Location: Marriott**

**Room: Franklin 2**

*Seats: 60*

*60-Minute Hands-On*

GENERAL MATH

## **385 Series Formulas Discovered by TI-84 Plus Silver Edition Graphing Calculator and Verified by Mathematical Induction**

*TI-84 Plus Silver Edition Graphing Calculator*

*Paul Foerster, foerster@idworld.net, Alamo Heights High School, San Antonio, TX, USA*

The sum of the cubes of the first  $n$  counting numbers can be assumed to be a fourth-degree function of  $n$ . Using the matrix feature of the grapher and the first five sums gives values of the five coefficients in the sum function. But to guarantee that the formula works for all values of  $n$ , no matter how large, you must resort to mathematical induction. You will see how the TI-84 Plus Silver Edition Graphing Calculator motivates students to understand the induction technique.

**1:00 p.m. - 2:00 p.m.**

**Location: Marriott**

**Room: Franklin 4**

*Seats: 60*

*60-Minute Lecture/Demonstration*

PRECALCULUS

## **386 Curve Sketching in Calculus with CAS**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Fred Ferneyhough, Caledon Village, ON, CANADA*

The TI-Nspire™ CAS Handheld allows students to tackle many different types of problems quickly and consolidate their understanding of the concepts. The session will look at both polynomial and rational functions.

**1:00 p.m. - 2:00 p.m.**

**Location: Marriott**

**Room: Franklin 5**

*Seats: 60*

*60-Minute Hands-On*

CAS

## **387 CAS in the Algebra I Classroom**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Ray Klein, rklein90190@aol.com, Glen Ellyn, IL, USA*

Too many people have the unfortunate opinion that a CAS calculator does too much for the typical student. Come see how CAS can be used to *teach math for understanding*, not replace the learning of math. This workshop will be directed toward the Algebra I classroom and will use the TI-Nspire™ CAS Handheld.

**1:00 p.m. - 2:00 p.m.**

**Location: Marriott**

**Room: Franklin 6**

*Seats: 60*

*60-Minute Hands-On*

CAS

## **388 Assessment with CAS: Writing Tests for CAS-capable Students**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Michael Buescher, michael@mbuescher.com, Hathaway Brown School, Shaker Heights, OH, USA*

When students have CAS, how do we change the kind of questions we ask on tests and quizzes? What skills should we de-emphasize, and which are still important? What new solution methods materialize? How should students document the work they do on a machine? CAS-active Algebra II and Precalculus questions and student responses will be shared.

**1:00 p.m. - 2:00 p.m.**

**Location: Marriott**

**Room: Franklin 7**

*Seats: 60*

*60-Minute Lecture/Demonstration*

CAS

## 389 Problems for CAS Solutions

*Lin McMullin, lnmcmullin@aol.com, Arkansas Advanced Initiative for Math and Science, Richardson, TX, USA*

Participants will discuss a collection of problems that can be solved using CAS technology such as the TI-89 Titanium Graphing Calculator or the TI-Nspire™ CAS Handheld. The problems are at the Algebra II through Calculus level and will include Lin McMullin's Theorem.

**1:00 p.m. - 2:00 p.m.**

**Location: Marriott**

**Room: Franklin 8**

*Seats: 60*

*60-Minute Lecture/Demonstration*  
CAS

## 390 What Purposes Does Technology Really Play on Standardized Tests and in Classrooms?

*Rose Zbiek, rmz101@psu.edu, The Pennsylvania State University, University Park, PA, USA*

Building upon a recent study, we start with the question of what happens when students are allowed to use Computer Algebra Systems (CAS) on a standardized test (ACT). We then take a deeper look at released items, student strategies and classroom experiences to identify the purposes for which students use CAS or other technologies. As a result, the session provides insights not only into whether students would benefit from the use of CAS technology on major assessments, but also into how they use it and how their purposes might mask or highlight their mathematical understandings.

**1:00 p.m. - 2:00 p.m.**

**Location: Marriott**

**Room: Franklin 9**

*Seats: 60*

*60-Minute Lecture/Demonstration*  
CAS

## 392 Apps on the TI-83 Plus and TI-84 Plus Silver Edition Graphing Calculators: Who Knew?

*TI-84 Plus Silver Edition Graphing Calculator*

*Donna Harris, donna1harris@yahoo.com, Saginaw, TX, USA*

Are you getting the most out of your TI-83 Plus or TI-84 Plus Silver Edition graphing calculator? Do you know what's available through the APP key? Come check out some great apps such as Area Formulas, Decimal Defender, Math by Hand, Probability Simulation and Rational Number Rampage.

**1:00 p.m. - 2:00 p.m.**

**Location: Marriott**

**Room: Franklin 11**

*Seats: 60*

*60-Minute Hands-On*  
MIDDLE GRADES MATH

## 393 Never Used a TI-Nspire™ Handheld or a TI-Nspire™ Navigator™ System? Come and Learn What All the Excitement is About.

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Scott Powell, scotpowe@gmail.com, King David Kalakaua Middle School, Honolulu, HI, USA*

See how to use the exciting TI-Nspire™ Technology in the middle school classroom. Learn about the different applications, action-consequence document, sending and receiving information for formative assessment, and much more.

**1:00 p.m. - 2:00 p.m.**

**Location: Marriott**

**Room: Franklin 12**

*Seats: 60*

*60-Minute Hands-On*  
MIDDLE GRADES MATH

## 394 Five Things You Might Not Know You Can Do with a TI-73 Explorer™ Graphing Calculator

*TI-73 Explorer™ Graphing Calculator*

*Ray O'Brien, obrien@comcast.net, Cedarbrook Middle School, Wyncote, PA, USA*

Learn at least five things you can do with the TI-73 Explorer™ Graphing Calculator that will assist your students in developing algebraic reasoning. We will cover topics including proportionality and linear relationships.

**1:00 p.m. - 2:00 p.m.**

**Location: Marriott**

**Room: Franklin 13**

*Seats: 60*

*60-Minute Hands-On*  
MIDDLE GRADES MATH



## 395 Pattern Building in Algebra

*TI-84 Plus Silver Edition Graphing Calculator*

*Ed Laughbaum, elaugbha@math.ohio-state.edu, Marysville, OH, USA*

Pattern recognition (generalizing) is the predominant activity of the thinking brain, easily overtaking reasoning. Yet we often teach a lesson through reasoning and ignore pattern generalizing. Generalizing a pattern creates a memory. The graphing calculator provides for many types of pattern building. Doing sample problems with the expectation that students will follow your example is *not* the kind of pattern building we will discuss. A variety of TI-84 Plus Silver Edition Graphing Calculator teaching activities will be shared.

**1:00 p.m. - 2:00 p.m.**

**Location: Marriott**

**Room: Salon J**

*Seats: 60*

*60-Minute Lecture/Demonstration*

ALGEBRA I

## 396 Performing and Assessing Science Lab Activities Using the TI-Nspire™ Navigator™ System

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Rob Reniewicki, rreniewicki@susd.org, Scottsdale, AZ, USA*

In this session, participants will use TI-Nspire™ Technology to make a prediction, perform an experiment, collect and present data, and assess the results and understanding of the science concepts presented.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 109 B**

*Seats: 60*

*90-Minute Hands-On*

GENERAL SCIENCE

## 397 Let's Explore the TI-Nspire™ Handheld

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Murney Bell, murneybell@sbcglobal.net, Siena Heights University, Chesterfield, MI, USA*

With the TI-Nspire™ Handheld, students are encouraged to correct their work with Boolean Algebra. Students can explore how coefficients affect the characteristics of a function. With the Graphing application, students will be able see how these changes occur in real time. With the List & Spreadsheets application, students can use data that they have collected and see how mathematics can explain and generalize what is around them in real life. We will explore these ideas and many more applications and concepts.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 110 AB**

*Seats: 40*

*90-Minute Hands-On*

ADMINISTRATOR

## 398 Using the TI-Nspire™ CAS Handheld to Bring the Next Generation Science Framework to Life in the Classroom

*TI-Nspire™ CX CAS Handheld*

*Patti Smith, Leonard, MI, USA*

In this hands-on workshop, you will learn how to collect data using the TI-Nspire™ CAS Handheld, and the Vernier® DataQuest™ app and temperature and gas pressure sensors. Experience how you can use simple substances, such as Alka-Seltzer®, to explore strategies and approaches that will bring Dimension 1 of the Next Generation Science Framework to life in your classroom.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 111 B**

*Seats: 60*

*90-Minute Hands-On*

GENERAL SCIENCE

## 399 The TI-Nspire™ Navigator™ System for Power Users

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Jeff McCalla, jmccalla@stmarysschool.org, St. Mary's Episcopal School, Memphis, TN, USA*

*Co-Presenter: Jennifer Wilson*

Are you using the TI-Nspire™ Navigator™ System to its full potential? It is the perfect complement to ensure that your students are entering into the CCSS Mathematical Practices. Come and explore new question types and learn how to utilize obscure functionality as the presenters share examples from their own classrooms.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 112 A**

*Seats: 40*

*90-Minute Hands-On*

ASSESSMENT



## 400 Simulating and Building a STEM Instrument for the Science Classroom

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Fred Fotsch, ffotsch@drury.edu, Glendale High School, Springfield, MO, USA*

Participants will experience STEM project-based learning in this hands-on workshop. Participants will use a Lua simulation to explore and understand the concept of colorimetry and then build a colorimeter instrument from simple parts. After building the instrument, participants will calibrate it using food coloring and water. Once calibrated using a standard curve, the concentration of an unknown solution will be measured and calculated. Participants will learn about STEM education, data collection, input/output modules, electronics and Lua simulation. Participants may keep their instrument and will receive a copy of the simulation along with project directions, including a source list for parts.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 112 B**

*Seats: 40*

*90-Minute Hands-On*

TECHNOLOGY

## 401 Enhancing a Biology Classroom Using the TI-Nspire™ Navigator™ System

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Christy Barton, cbarton@madeiracitieschools.org, Madeira High School, Cincinnati, OH, USA*

This session will introduce the use of the TI-Nspire™ Navigator™ System to enhance instruction, assessment and data collection in a science classroom (biology would be the content focus, but the information would be applicable in any science classroom). The use of quick polls, quizzes, and data collection within a biology classroom will be demonstrated. The participants will have time to ask questions and practice data collection. Beginners are welcome.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 113 A**

*Seats: 80*

*90-Minute Hands-On*

BIOLOGY

## 402 Chemistry Activities with TI-Nspire™ Technology Using the Vernier® DataQuest™ App

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*C.W. Eaker, eaker@udallas.edu, University of Dallas, Carrollton, TX, USA*

This session will focus on data collection in the chemistry classroom using the Vernier® DataQuest™ App on the TI-Nspire™ CAS Handheld. Activities will include Endo/Exothermic Reactions, Beer's Law, Boyle's Law and Evaporation of Alcohols.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 113 B**

*Seats: 80*

*90-Minute Hands-On*

CHEMISTRY

## 403 Physics, Math and Texas Instruments Education Technology: Perfect Recipe for an Integrated Course

*Angeles Dominguez, angeles.dominguez@itesm.mx, Tecnologico de Monterrey, Monterrey, MEXICO*

*Co-Presenter: Raul Hernandez*

This lecture presents a way in which physics, math and Texas Instruments Education Technology integrate to promote learning and foster deeper understanding of core concepts. First-year college physics and mathematics courses were taught using the integrated approach supported by the TI-Navigator™ Classroom Learning System. This integrated course used modeling to detonate the physical concepts and then went deeper using the mathematical tools. Students engaged in exploring, discussing, constructing and refining their own physical and mathematical ideas. The use of technology created the perfect environment for the integration of the content facilitating the sharing of data and generating a common space to collaborate and learn.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 113 C**

*Seats: 80*

*90-Minute Lecture/Demonstration*

PHYSICS

## 404 TI-Nspire™ App for iPad®: You Can Finally Bring Your iPad® into the Math Classroom to Learn Math

*TI-Nspire™ App for iPad®*

*Allan Bellman, University of Mississippi, Oxford, MS, USA*

The iPad® provides an electronic textbook and a link to the world through video, still images and the internet. But until now it was not a fully productive member of the math classroom. See how the app allows you to fully integrate the interactivity of TI-Nspire™ Technology with the real world as seen from your iPad®. Learn how your textbooks and classroom can come alive with video, digital images and the mathematically interactive lessons you've come to love from Texas Instruments. The iPad® is finally a member of the math classroom!

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 114**

*Seats: 600*

*90-Minute Lecture/Demonstration*

TECHNOLOGY

## 406 Get Started with Common Core Using the TI-Nspire™ Handheld

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Michelle Bonds, lil\_bitmic@hotmail.com, Bald Knob High School, Bald Knob, AR, USA

Come see how TI-Nspire™ Technology can help you with the Common Core State Standards. This beginners session will have hands-on activities that follow CCSS best practices and math standards to use with your students. No experience necessary.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 115 B**

Seats: 80

90-Minute Hands-On

TECHNOLOGY

## 407 Nspire Students with Technology via Data Collection Using Balloons and Other Fun Resources

TI-Nspire™ CX CAS Handheld, TI-Nspire™ Lab Cradle

Kathleen McKinley, kmcki10063@aol.com, School District of Lancaster, Philadelphia, PA, USA

Use the CBR 2™ and TI-Nspire™ Technology to integrate and investigate mathematics and science activities. Build and race balloon cars and investigate other balloon activities that foster mathematical connections. Analyze generated data and graphs. Learn ways to achieve CCSS and Practices through the use of technology and fun!

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 115 C**

Seats: 80

90-Minute Hands-On

TECHNOLOGY

## 408 Striking Statistical Simulations Using Lua Scripting

TI-Nspire™ Navigator™ NC System

Andy Kemp, andy@kemp.co, Wells Cathedral School, Wells, UNITED KINGDOM

In this session, learn how Lua scripting can be used to build visually striking simulations which fully integrate with the built-in TI-Nspire™ Navigator™ NC System analysis tools to illustrate underlying statistical concepts.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 116**

Seats: 80

90-Minute Lecture/Demonstration

AUTHORING

## 409 Tech Tips for AP\* Calculus: TI-84 Plus Silver Edition Graphing Calculator and TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Sean Bird, covenantbird@gmail.com, Covenant Christian High School, Indianapolis, IN, USA

Considering the TI-Nspire™ CAS Handheld for Calculus but concerned about the transition? Come learn about how to effectively use the TI-84 Plus Silver Edition Graphing Calculator and TI-Nspire™ Technology. Explore some advantages to CAS (Computer Algebra System) and try activities for slope fields, solids of revolution and many more. Bring your own TI-84 Plus Silver Edition Graphing Calculator. TI-Nspire™ CAS Handhelds will be available for the session. Enjoy this dynamic presentation from a 15-year AP\* Calculus teacher who has been using CAS since 2007.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 117**

Seats: 80

90-Minute Hands-On

CALCULUS

## 410 You Want Me To Do What?

TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System

Kim Zeydel, zeydel.kim@meridianschools.org, Meridian Academy, Meridian, ID, USA

Co-Presenter: Kara Leaman

How are Special Needs and At-Risk students responding to TI-Nspire™ Activities? We will be analyzing actual student responses and their mathematical misconceptions from activities we have recently used with this population. We will be using the TI-Nspire™ Navigator™ System to demonstrate this and how powerful this instructional tool is with these unique students.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 118 A**

Seats: 80

90-Minute Hands-On

GENERAL MATH

## **411 F<sup>25</sup>: 25 Lesser Known Features of the TI-84 Plus Silver Edition Graphing Calculator**

*TI-84 Plus Silver Edition Graphing Calculator*

*Marilyn Parker, parker@interact.ccsd.net, Las Vegas, NV, USA*

*Co-Presenter: Robin Levine-Wissing*

Twenty-five years' experience and 25 features you may not have known about. Join us as we explore some features of the TI-84 Plus Silver Edition Graphing Calculator that are not automatically found by the average user. Handouts provided for all participants.

**2:15 p.m. - 3:45 p.m.**

**Location:** Convention Ctr.

**Room:** 118 B

*Seats: 80*

*90-Minute Hands-On*

GENERAL MATH

## **412 So you Bought an TI-Nspire™ Handheld. Now What?**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Becky Byer, becky\_byer@ncsd.k12.wy.us, Kelly Walsh High School, Casper, WY, USA*

*Co-Presenter: Becky Underwood*

New to the TI-Nspire™ Technology? Come learn how it enables you to accomplish all the tasks you did with your previous technology — and much, much more. Learn how to link geometric measurements and calculations to a spreadsheet and/or graph. See how easy it is to import pictures from the internet for function modeling. Learn how to link data collection devices to the handheld for data collection and analysis.

**2:15 p.m. - 3:45 p.m.**

**Location:** Convention Ctr.

**Room:** 118 C

*Seats: 80*

*90-Minute Hands-On*

GENERAL MATH

## **414 The Amazing Classroom Freedom Race**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System, TI-84 Plus Silver Edition Graphing Calculator*

*Jane Damaske, jdamaske@ti.com, Saint Joseph, MI, USA*

*Co-Presenter: Judy Hicks*

All classroom teachers feel the need for more time. Come experience this Amazing Race toward classroom freedom. Clues will help you work your way through the challenge of this race. Participants will discover the immense wealth of information on the Texas Instruments Education Technology website, explore the apps of the TI-84 Plus Silver Edition Graphing Calculator and engage in activities using TI-Nspire™ Handheld. Wear your athletic gear and come ready to win.

**2:15 p.m. - 3:45 p.m.**

**Location:** Convention Ctr.

**Room:** 119 B

*Seats: 60*

*90-Minute Hands-On*

GENERAL INTEREST

## **415 Our Favorite TI-Nspire™ Activities for Precalculus Bring the Common Core State Standards to Life**

*TI-Nspire™ CX Handheld*

*Aurelia Weil, akweil@att.net, Cor Jesu Academy, Fenton, MO, USA*

*Co-Presenter: Sherry Everding*

Join us for a discussion of how well our favorite Precalculus activities reflect the CCSS for Mathematical Practice. Topics include Transformations of Families of Functions, Inverse Functions, the Unit Circle, Compound Interest on a Spreadsheet and Rates of Change. Students tell us they finally understand the *why* behind the math concepts.

**2:15 p.m. - 3:45 p.m.**

**Location:** Convention Ctr.

**Room:** 120 A

*Seats: 80*

*90-Minute Hands-On*

PRECALCULUS

## **416 TI-Nspire™ Applications for the Common Core**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Howard Stern, hastern@gmail.com, DeWitt Clinton High School, Bronx, NY, USA*

TI-Nspire™ Technology makes a powerful tool to help educators address many aspects of the Common Core Math Standards. There are particular ties to Modeling, Using Appropriate Tools and Looking for Structure. We will explore a few applications to illustrate these capabilities and discuss possible ways to adapt existing lesson plans with an eye towards the Common Core.

**2:15 p.m. - 3:45 p.m.**

**Location:** Convention Ctr.

**Room:** 120 B

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA I

## 417 Activate with Active Math Boxes

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Philip Magner, mathman@sbcglobal.net, Modesto, CA, USA*

Active Math Boxes embedded into a Notes page have interesting results and uses for your classroom. They can be linked to sliders and used a wide variety of applications. You will create files that can be implemented next week in your classes.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 120 C**

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA I

## 418 Angry Birds® and Other Games to Promote Learning in the Algebra Classroom

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Lauren Jensen, ljensenmath@gmail.com, WI Heights High School, Spring Green, WI, USA*

Come join us as we look at various games to promote student learning. Emphasis will be on linear and quadratic functions.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 121 A**

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA I

## 420 Capture the Geometry with the TI-Nspire™ Family of Handhelds

*TI-Nspire™ CX CAS Handheld*

*Karen Campe, skcampe@optonline.net, Yale University, New Canaan, CT, USA*

Take dynamic Geometry constructions to the next level by learning to use the data capture feature of the TI-Nspire™ CAS Handheld. Gather data sets modeled by linear, quadratic and other common functions. Make connections between Geometry and Algebra for your students. Take home ready-made lessons and powerful new tools for your Geometry class.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 121 C**

*Seats: 60*

*90-Minute Hands-On*

GEOMETRY

## 421 TI-Nspire™ Navigator™ System Data Collection 101: Use Quick Polls to Quickly Get Class Data for Analysis

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Lee Kucera, lekucera@cox.net, Laguna Beach, CA, USA*

The Common Core State Standards include data analysis at several levels. Get students more involved by collecting the data using quick polls and the TI-Nspire™ Navigator™ System and sending it back out to students to analyze on their handhelds. We will also look at Math Nspired Statistics to create documents to use with students.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 122 A**

*Seats: 60*

*90-Minute Hands-On*

STATISTICS

## 422 Ask, Don't Tell: Listen to Learn and Assess

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Jill Gough, Trinity School, Atlanta, GA, USA*

*Co-Presenter: Sam Gough*

Can we merge diagnostic and formative assessment to lead learning? How will TI-Nspire™ CAS Handheld action-consequence documents combined with the TI-Nspire™ Navigator™ System allow us to leverage technology to focus on learning? What if we used the ideas of simplicity and restraint when developing and leading lessons? What can be learned if we question our way through an entire lesson? Is it possible to allow students to steer the lesson through their questions? Will listening to student questions help us diagnose, assess and chart a course in real time? Can we lead learning by following their thinking? Will you come to this session and plan to serve as a student, an observer, and a questioner?

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 122 B**

*Seats: 160*

*90-Minute Hands-On*

GENERAL INTEREST

## **423 RATS! Why are RAtional Function so Hard? TI-Nspire™ Technology to the Rescue.**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Lynn Adsit, lynn\_adsit@misd.wednet.edu, Mercer Island High School, Mercer Island, WA, USA*

*Co-Presenter: Kim Schjelderup*

Students really struggle with rational functions, but why? Let's look at how to help students *really* get rational functions concepts and procedures including graphing and solving equations. We will use good old pencil-and-paper activities as well as TI-Nspire™ CAS Handheld documents and the TI-Nspire™ Navigator™ System to explore this issue. Maybe we'll even come up with some answers.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 123**

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA II

## **424 Common Core State Standards for Mathematics, TI-Nspire™ Technology and Data Collection: The Correlation**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Delbra Robinson, delstar@comcast.net, Chesterfield Twp., MI, USA*

This session will employ a hands-on, *fun* approach to investigating the CCSSM while making data and graphical analysis correlations! Participants will utilize the TI-Nspire™ Handheld, TI-Nspire™ Lab Cradle and Vernier® probes to collect, represent and analyze real-time data to explore and relate the process and outcomes to the specific Common Core high school conceptual categorical Content Standards (number and quantity, Algebra, functions, modeling, geometry, statistics and probability) and to the Mathematical Practice Standards. Participants will verify, justify and gain higher proficiency using TI-Nspire™ Technology in order to reach students in the 21st century.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 124**

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA II

## **425 How do you Meet the Standards and Still Excite Your Math Students? Use a Lab-based Approach with TI-Nspire™ Technology.**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Ronald Armontrout, rarmontr@hotchkiss.org, Hotchkiss School, Lakeville, CT, USA*

The Core Algebra Standards strongly endorse teaching mathematical reasoning and sense-making through modeling and discovery-based learning. Using TI-Nspire™ Handhelds, participants will model classroom activities appropriate for students in all levels of mathematics. Models will include discrete dynamical systems (iteration of linear functions and matrices), fitting mathematical models to data and local linearity as a rate of change. These models require an ability to reason mathematically. These student labs are designed not only for their mathematical content, but also to allow students to develop a deeper understanding of real-world phenomena.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 125**

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA II

## **426 The Secret Powers of the TI-Nspire™ CAS Handheld Menu System Revealed**

*TI-Nspire™ CX Handheld*

*Roger Fuller, fullermath@yahoo.com, South Grand Prairie High School, Grand Prairie, TX, USA*

The TI-Nspire™ Handheld menu system is divided into two parts: the control menu and the context menu. Like the sides of your brain, they function together best when you learn how to take advantage of their synergy. Specifically, learn how to concept-navigate in the first one and attribute-affect in the second. Powerful knowledge for the beginner and deeper understanding for the advanced user. Excellent session for teachers and users alike.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 126 A**

*Seats: 180*

*90-Minute Hands-On*

GENERAL INTEREST

## **427 Inspired to Do Math in the Real World**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ Lab Cradle*

*Linda Antinone, linda.antinone@sbcglobal.net, Paschal High School, Fort Worth, TX, USA*

Use TI-Nspire™ Technology to explore real world problems in Algebra II and Precalculus. Topics in exponential equations, parametrics and piecewise defined functions will be explored, as well as data collection with the Vernier® DataQuest™ application. Come to a fun and informative session with problems sure to motivate your students.

**2:15 p.m. - 3:45 p.m.**

**Location: Convention Ctr.**

**Room: 126 B**

*Seats: 60*

*90-Minute Hands-On*

PRECALCULUS



## **428 TI-84 Plus C Silver Edition Graphing Calculator: Bright, Hi-Res Color and so much more**

*TI-84 Plus C Silver Edition Graphing Calculator*

*Margo Mankus, margo.mankus@ti.com, Beacon, NY, USA*

Color graphs, color Image Vars, and more MathPrint™ Feature areas. Come see the new enhancements to your favorite TI-84 Plus Silver Edition Graphing Calculator — now with C for bright, high-res color. Learn about about QuickPlot&Fit-EQ! TI-SmartView™ Emulator Software and TI Connect™ Software for TI-84 Plus C Silver Edition Graphing Calculator will also be demonstrated.

**2:15 p.m. - 3:45 p.m.**

**Location: Marriott**

**Room: Franklin 1**

*Seats: 60*

*60-Minute Hands-On*

ALGEBRA I

## **429 Bright Colors and More: See What the TI-84 Plus C Silver Edition Graphing Calculator Can Do**

*TI-84 Plus C Silver Edition Graphing Calculator*

*John LaMaster, lamaster@ipfw.edu, Indiana Purdue University – Fort Wayne, Fort Wayne, IN, USA*

The TI-84 Plus C Silver Edition Graphing Calculator is not just brighter. It's even easier to use. Through hands-on classroom activities, see its new and updated features that can help your students meet the Common Core State Standards and transform how you teach. You may never want to go back to monochrome again.

**2:15 p.m. - 3:45 p.m.**

**Location: Marriott**

**Room: Franklin 2**

*Seats: 60*

*90-Minute Hands-On*

GENERAL MATH

## **430 Lunes of Hippocrates and the Wheel of Theodorus**

*TI-84 Plus Silver Edition Graphing Calculator*

*Susan Howe, susan\_howe@hcpss.org, Long Reach High School, Columbia, MD, USA*

We will create these historical figures and explore their properties using Cabri™ Jr. on the TI-84 Plus Silver Edition Graphing Calculator. We will discuss algebraic proofs of these properties and how to use the activities in support of the Common Core Mathematical Practice, construct viable arguments and critique the reasoning of others.

**2:15 p.m. - 3:45 p.m.**

**Location: Marriott**

**Room: Franklin 4**

*Seats: 60*

*90-Minute Hands-On*

GEOMETRY

## **431 Making the Most of the TI-Nspire™ CAS Handheld Notes Application**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Peter Flynn, peterjohnflynn@gmail.com, The University of Melbourne, Melbourne, AUSTRALIA*

In this session, participants will learn how to make meaningful use of the TI-Nspire™ CAS Handheld Notes application both as a powerful and interactive stand-alone application and dynamically in concert with other applications.

**2:15 p.m. - 3:45 p.m.**

**Location: Marriott**

**Room: Franklin 5**

*Seats: 60*

*90-Minute Hands-On*

CAS

## **432 Number Theoretic Programs for the TI-89 Titanium Graphing Calculator**

*TI-89 Titanium Graphing Calculator*

*Jay Schiffman, schiffman@rowan.edu, Rowan University, Glassboro, NJ, USA*

The TI-89 Titanium Graphing Calculator enables one to write neat programs amenable to supplement a course in elementary number theory. Explore such ideas as Goldbach's Conjecture, the Collatz Problem, the twin prime conjecture, Mersenne Primes leading to even perfect numbers, and recursive sequences with easily written user defined functions. In addition, participants will explore divisibility and periodicity. Please join us in this hands-on workshop and view technology as an additional representation in a setting suitable for pre-service, in-service and experienced teachers alike.

**2:15 p.m. - 3:45 p.m.**

**Location: Marriott**

**Room: Franklin 6**

*Seats: 60*

*90-Minute Hands-On*

CAS



## 434 Nspired Probability, Polynomials and CAS

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Steve Phelps, [sphelps@madeiracityschools.org](mailto:sphelps@madeiracityschools.org), Madeira High School, Cincinnati, OH, USA

Using TI-Nspire™ Technology, participants will explore connections between probability and polynomial multiplication through classroom-tested activities that address Common Core State Standards in Algebra, Functions, Modeling, and Statistics and Probability. Taking advantage of the capabilities of the List and Spreadsheet page and Calculator page, participants will learn how to interpret the structure of polynomial products, construct polynomial models of probability situations and use CAS to support student learning and inquiry.

**2:15 p.m. - 3:45 p.m.**

**Location: Marriott**

**Room: Franklin 8**

Seats: 60

90-Minute Hands-On

CAS

## 435 Using CAS to Promote Discovery in Algebra II and Precalculus

TI-Nspire™ CX CAS Handheld

Jon Lepeska, [lepeskaj@newtrier.k12.il.us](mailto:lepeskaj@newtrier.k12.il.us), New Trier High School, Winnetka, IL, USA

Co-Presenter: Jenny Wexler

Learn how we use the TI-Nspire™ CAS Handheld and TI-Nspire™ Handheld with Touchpad to foster student independence, build questioning skills and facilitate intellectual risk-taking in our Algebra II and Precalculus classrooms. Participants will work through and discuss student-tested examples and walk away with ready-to-use activities. Topics to be taken from standard Algebra II and Precalculus curricula, such as properties of exponents and logarithms, function notation, solving equations, trigonometric identities, and regression equations.

**2:15 p.m. - 3:45 p.m.**

**Location: Marriott**

**Room: Franklin 9**

Seats: 60

90-Minute Hands-On

CAS

## 436 Using Multiple Representations with the TI-10 and TI-15 Explorer™ Calculators to Build New Understandings in Elementary Mathematics

TI-15 Explorer™ Calculator

Tammy L Jones, [tammyjones@tljconsultinggroup.com](mailto:tammyjones@tljconsultinggroup.com), Lebanon, TN, USA

Beginning primary and developing elementary mathematicians use many varied representations to build new understandings and express mathematical ideas. These representations are methods for communicating as well as powerful tools for thinking. Participants will experience an investigation at the primary level and one at the elementary level that incorporate literature, manipulatives, and technology to build new understandings and extend and deepen existing knowledge.

**2:15 p.m. - 3:45 p.m.**

**Location: Marriott**

**Room: Franklin 10**

Seats: 60

90-Minute Hands-On

ELEMENTARY MATH

## 437 Curiosity Killed the Boring Classroom: Motivating Middle School Math Students

TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System

Maria Benzon, [mbbenzon@uh.edu](mailto:mbbenzon@uh.edu), University of Houston, Bellaire, TX, USA

Based on theories and research in student motivation, participants will learn how to tap into students' curiosity using the TI-Nspire™ CAS Handheld. In this introductory session, participants will explore features of the calculator through cooperative, hands-on activities. From computations with fractions to representing data through vibrant and dynamic visual graphs (e.g., circle graph, bar graph, dot plot, histogram and box-and-whisker plot), TI-Nspire™ CAS Handhelds, which will be available for use, are more than just graphing calculators.

**2:15 p.m. - 3:45 p.m.**

**Location: Marriott**

**Room: Franklin 11**

Seats: 60

90-Minute Hands-On

MIDDLE GRADES MATH

## 438 Inequalities from the University to the School Using the TI-Nspire™ CAS Handheld

TI-Nspire™ CX CAS Handheld

Manuel Antonio Montero Gaona, [mantonio\\_montero@hotmail.com](mailto:mantonio_montero@hotmail.com), Escuela Tecnologica Instituto Tecnico Central, Bogota, COLOMBIA

The inequalities play an important role in any company. With them, we can predict the future of products and your gain or loss over a period of time. At school, we teach inequalities and forget applications they can have in real life, which is where students understand inequalities. Then the most important thing in the process of teaching and learning of inequalities is to apply these concepts in real life, which we do with the help of the TI-Nspire™ CAS Handheld using advanced topics, but at a level according to our college students.

**2:15 p.m. - 3:45 p.m.**

**Location: Marriott**

**Room: Franklin 12**

Seats: 60

90-Minute Hands-On

MIDDLE GRADES MATH

## **439 Using the TI-73 Explorer™ Graphing Calculator in Middle Grades**

*TI-Navigator™ Classroom Learning System, TI-73 Explorer™ Graphing Calculator*

*Valerie Hudson, vhudson@ti.com, Colleyville, TX, USA*

Discover engaging activities to use in your middle grades classroom which utilize the TI-73 Explorer™ Graphing Calculator. The TI-Navigator™ Classroom Learning System will be used as well. All activities will be made available for participants to use with students immediately.

**2:15 p.m. - 3:45 p.m.**

**Location: Marriott**

**Room: Franklin 13**

*Seats: 60*

*90-Minute Hands-On*

MIDDLE GRADES MATH

## **440 Navigating through Algebra I and II Using Texas Instruments Education Technology**

*TI-84 Plus Silver Edition Graphing Calculator*

*Bill Stiggers, billstiggers@sbcglobal.net, Cleveland Municipal School District, Shaker Heights, OH, USA*

*Co-Presenter: Lisa Suarez-Caraballo*

Learn how to use and incorporate new and exciting Texas Instruments Education Technology into your current Algebra classes. You will learn how to use Algebra I, Inequalities, Transformation, Finance and Polynomial Root Finder applications to motivate students and teach Algebra more effectively.

**2:15 p.m. - 3:45 p.m.**

**Location: Marriott**

**Room: Salon J**

*Seats: 60*

*90-Minute Hands-On*

ALGEBRA I

## **441 TI-Nspire™ Technology and Vernier® DataQuest™ App: Physics Made Easy**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System, TI-Nspire™ Lab Cradle*

*Karlheinz Haas, kh76356@gmail.com, Marine Oceanographic Academy, Stuart, FL, USA*

The combination of the latest TI-Nspire™ Technology with the Vernier® DataQuest™ app can help maximize class time and provide more opportunities for engaging inquiry and discussion. The workshop will offer ideas to transform the typical teacher-centered classroom by encouraging an approach driven by problem-solving, discovery and exploratory learning. Participants will have an opportunity to experience how the DataQuest™ app allows users to quickly collect and analyze data. When used with the TI-Nspire™ Lab Cradle, you can use one sensor at a time or multiple sensors simultaneously for lab-based or in-the-field data collection. Several sensors such as force/motion sensors, photogates and accelerometers will be available to explore this integrated solution.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 109 B**

*Seats: 60*

*90-Minute Hands-On*

PHYSICS

## **442 Spicing Up Your Constructions: Piecewise Functions, Small Programs and Other Little Tricks**

*Adam Pennell, pennella@greensboro.edu, Greensboro College, Greensboro, NC, USA*

This session is designed to help you start the transition from basic constructions to more advanced ones. Attendees will build a construction designed to introduce the idea of selecting the correct mathematical model to represent data. In the course of building the construction, it will be shown how the combination of piecewise functions, small programs and other little tricks can enhance your constructions. No programming experience is necessary. This session can be done using a handheld, but a laptop with the TI-Nspire™ Teacher Software is recommended.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 110 AB**

*Seats: 40*

*90-Minute Hands-On*

ADMINISTRATOR

## **443 Pressure: Using the Gas Pressure Probe with the TI-84 Plus Silver Edition Graphing Calculator and TI-Navigator™ Classroom Learning System**

*TI-Navigator™ Classroom Learning System, TI-84 Plus Silver Edition Graphing Calculator*

*Greg Williams, gbwilliams4@juno.com, Maury High School, Norfolk, VA, USA*

We will collect pressure vs. depth and pressure vs. volume data with the gas pressure probe and the TI-84 Plus Silver Edition Graphing Calculator. Data will be analyzed graphically and compared with expected results.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 111 B**

*Seats: 60*

*90-Minute Hands-On*

GENERAL SCIENCE

## **444 Formative Assessment During a Lesson with TI-Nspire™ Technology**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Deb Nutt, koalanut@bright.net, Celina High School, Celina, OH, USA*

How do you know if your students understand the main concepts for the day? Come learn how to use TI-Nspire™ Technology to question your students as a formative assesment method. Learn about the different type of questions you can use on a daily basis, how to create files that can be self-checked and even make quizzes, which will be graded during the session.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 112 A**

*Seats: 40*

*90-Minute Hands-On*

**ASSESSMENT**

## **446 Investigating Photosynthesis and Respiration with the TI-84 Plus C Silver Edition Graphing Calculator**

*TI-84 Plus C Silver Edition Graphing Calculator*

*Judy Day, judy\_day@mac.com, NC State University, Raleigh, NC, USA*

*Co-Presenter: Louise Chapman*

Using Vernier® sensors and the TI-84 Plus C Silver Edition Graphing Calculator, learn how to assist students in understanding the differences between photosynthesis and respiration. This session will utilize several different sensors for data collection and is appropriate for all levels of technology users.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 113 A**

*Seats: 80*

*90-Minute Hands-On*

**BIOLOGY**

## **447 Boyles Law with TI-Nspire™ Technology**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Marc Drougel, drougel@hotmail.com, Detroit Country Day School, Beverly Hills, MI, USA*

Come explore the relationship between the pressure and volume of a gas using TI-Nspire™ Technology and a gas pressure sensor. The entire experience from pre-lab questions to data collection and analysis to post-lab questions will be done on TI-Nspire™ CAS Handheld. Graphical manipulation will be conducted to prepare for discussions in chemical kinetics.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 113 B**

*Seats: 80*

*90-Minute Hands-On*

**CHEMISTRY**

## **448 Physics Experiments from All Over the World with TI-Nspire™ Technology**

*TI-Nspire™ CX CAS Handheld, TI-Nspire Lab Cradle*

*Cathy Baars, cathy.baars@quicknet.nl, Martinuscollege, Grootebroek, NETHERLANDS*

The international character of the conference will be used to share physics experiments from all over the world. Bring your (country's) set of (best) experiments. The purpose of this session is to exchange these best experiments, invent new experiments and go home with ideas (and documents) to teach and investigate physics. The main topics will be mechanics, sound, electricity/electromagnetism and light. Other special experiments are welcome. Basic equipment will be available. My contribution to the session will be a spectral analysis of sound with FFT and video measurements.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 113 C**

*Seats: 80*

*90-Minute Hands-On*

**PHYSICS**

## **449 I Have an iPad® – Now What?**

*TI-Nspire™ App for iPad®*

*Greg Dodd, gbdodd@gmail.com, George Washington High School, Charleston, WV, USA*

Teachers who are presented with a classroom of iPads® often don't know how to effectively use them for science instruction. Physical science/chemistry students have misconceptions about the microscopic world of atoms, molecules, and ions because they live in the macroscopic world. Simulations are an effective way to reverse those misconceptions. Join us for this TI-Nspire™ App for iPad® presentation.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 114**

*Seats: 600*

*90-Minute Hands-On*

**GENERAL SCIENCE**

## **453 Dynamic Programming with the TI-83 Plus and TI-84 Plus Silver Edition Graphing Calculators**

*TI-83 Plus Graphing Calculator, TI-84 Plus Silver Edition Graphing Calculator*

*Christopher Langhorn, clanghorn@ti.com, Newport News, VA, USA*

We learn how to create a program that will have subprograms that will perform calculations, display graphs and have custom menus. Come learn some of the exciting features of the TI-83 Plus and TI-84 Plus Silver Edition graphing calculators. All levels of programmers are welcome.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 116**

*Seats: 80*

*90-Minute Hands-On*

**PROGRAMMING**

## **454 Exploring Real Data in the Calculus Classroom Using the TI-Nspire™ CAS Handheld and the Vernier® System**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ Lab Cradle*

*Douglas Dunkle, ddunkle@bcps.org, Franklin High School/Baltimore Excellence In Science And Technology (BEST) Program, Reisterstown, MD, USA*

*Co-Presenter: Michael Kutzer*

After spending a summer working with a mechanical engineer, find out what a calculus teacher did in his classroom to better prepare students for an applied career. Break free from continuity and participate in the teaching of calculus through real-world, discreet data using the TI-Nspire™ Technology and Vernier® data sensors.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 117**

*Seats: 80*

*90-Minute Hands-On*

**CALCULUS**

## **455 What's So Mean About It? 5 – 7 Grade Common Core State Standards on Data and Statistics**

*TI-73 Explorer™ Graphing Calculator, TI-83 Plus Graphing Calculator, TI-84 Plus Silver Edition Graphing Calculator*

*Jane Martain, jmartain@xmission.com, Jordan School District, Brighton, UT, USA*

Participants will engage in an examination and discussion of the Common Core State Standards dealing with data and statistics in the middle grades 5 – 7. Activities will be presented and experienced using the participant's graphing calculator of choice.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 118 A**

*Seats: 80*

*90-Minute Hands-On*

**GENERAL MATH**

## **457 Data Analysis with TI-Nspire™ Technology: Common Core Modeling in the Math Classroom**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Jeremy Zolkowski, jzolkowski@bamaed.ua.edu, The University of Alabama, Tuscaloosa, AL, USA*

This session will focus on the beginners-level use of the TI-Nspire™ CAS Handheld for integrating data analysis and modeling in the high school classroom to meet the expectations of the Common Core. Content area topics will be selected from Algebra and Geometry. The TI-Nspire™ Navigator™ System will be used but is not the focus of the session. The session will encompass audience participation throughout in a hands-on discovery lesson. Beginner-level users (teachers, preservice) will be the focus for session design, but intermediate and advanced users are perfectly welcome.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 118 C**

*Seats: 80*

*90-Minute Hands-On*

**GENERAL MATH**

## **458 The TI-Nspire™ PublishView™ Feature: Learn How Teachers Create Lesson Plans and Students Create Reports**

*Wallece Brewer, wbrewer@astate.edu, ASU Rural STEM Education Center, Jonesboro, AR, USA*

Common Core State Standards ask teachers to integrate technology into their lessons and students to publish their work. Participants will learn how to effectively use the TI-Nspire™ PublishView™ feature that is available on TI-Nspire™ Student Software and Teacher Software and create a sample document using the teacher software. Feel free to bring a USB containing .tns and JPEG files as well as a list of Internet and video resources you would like to use.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 119 A**

*Seats: 60*

*90-Minute Hands-On*

**GENERAL INTEREST**

## **461 Exploring Algebra I with the TI-Nspire™ Navigator™ System**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Abby Sanchez, absanchez117@yahoo.com, Waller High School, Waller, TX, USA*

*Co-Presenter: Patrick Sanchez*

Come experience how the TI-Nspire™ Technology promotes exploration and learning in the Algebra I classroom. Participants will engage in activities that use the interactive features of the TI-Nspire™ Navigator™ System to develop algebraic concepts and see how its power can help students be more successful in the classroom.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 120 B**

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA I

## **462 Exploring Functions with Sliders and Data Capture**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Beatrice Metts-Bell, mettsb11@aol.com, Providence School Department, Providence, RI, USA*

Participants will learn to use TI-Nspire™ Technology data capture and slider features to create lessons for specific types of functions and to find the commonalities among different types of functions. Working with functions is a critical area in the Common Core State Standards in Algebra I, in which students will explore many examples of functions, including sequences; interpret functions graphically, numerically, symbolically and verbally; translate between representations; and understand the limitations of various representations. This session should help educators to enhance student understanding of these concepts.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 120 C**

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA I

## **463 CCSS-aligned TI-Nspired™ Algebra Activities: Hands-on Explorations, Student Opinions and Assessment Results**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Ann Schlemper, aschlemper@ccis.edu, Columbia College, Columbia, MO, USA*

*Co-Presenter: Michelle Goetz*

Math Nspired is a great, free resource for teachers looking for activities that are aligned with the Common Core State Standards. Several of the Math Nspired Algebra activities will be explored during the session. The opinions of what students who experienced these activities during an actual algebra class will be shared. Results of instruments used to assess students' understanding per CCSS will be provided.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 121 A**

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA I

## **464 Transitioning Through Geometry in the CCSS**

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Ellen Johnston, ellen.johnston@fayar.net, CIAA (Curriculum, Instruction, Assessment And Accountability), Fayetteville, AR, USA*

This session will look at the flow from middle grades Geometry to the high school conceptual category Geometry. Math Nspired and other digital resources will be used to showcase some exemplary lessons and performance tasks. The TI-Nspire™ Handheld and TI-Nspire™ Navigator™ will be used as a tool when appropriate.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 121 B**

*Seats: 80*

*90-Minute Hands-On*

GEOMETRY

## **465 All Sorts of 2D and 3D Dynamic Investigations Allowed by the Direct Manipulation of Lots of Parameters in TI-Nspire™ Technology**

*Jean-Jacques Dahan, jjdahan@wanadoo.fr, IREM of Toulouse, Toulouse, FRANCE*

The latest version of TI-Nspire™ Technology has been improved with lots of tools related to conics. It allows to create a lots of challenging and motivating problems for the classroom at all levels and especially during the teaching of functions (quadratics or homographic functions). We will present some of these problems and especially some problems of reflection in optic. We will show also the use of the parametric tool in 3D allowing users to create and visualize 3D curves. All the examples will use the slider tool to obtain heuristic animations.

**4:00 p.m. - 5:30 p.m.**

**Location: Convention Ctr.**

**Room: 121 C**

*Seats: 60*

*90-Minute Lecture/Demonstration*

GEOMETRY



## 466 Exploring Variation in the TI-Nspire™ Classroom

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Mike Bevelacqua, bevelacqua.mike@gmail.com, City High School, Iowa City, IA, USA*

The Common Core State Standards Initiative identifies Interpreting Categorical and Quantitative Data as essential for all high school students. This hands-on session will explore variation through problem-based lessons that take advantage of the dynamically linked representational capabilities of TI-Nspire™ Technology. This session is appropriate for beginners and intermediate users.

**4:00 p.m. - 5:30 p.m.**

**Location:** Convention Ctr.

**Room:** 122 A

*Seats: 60*

*90-Minute Hands-On*

STATISTICS

## 468 Engaging students with Nspiring Technology Using the TI-Nspire™ Navigator™ System

*TI-Nspire™ CX Handheld, TI-Nspire™ CX Navigator™ System*

*Kevin Rodgers, kevin\_rodgers@gwinnett.k12.ga.us, Mill Creek High School, Hoschton, GA, USA*

This presentation will be an introduction to the TI-Nspire™ Navigator™ System. Participants will take part in an actual math lesson that will demonstrate a teacher's capability to engage students, assess their work and provide critical, *instantaneous* skill practice and feedback. The demonstration will also show/explain how to create a TI-Nspire™ classroom; use class analysis for assessments; employ features like screen capture and quick poll; and create, send, and receive documents.

**4:00 p.m. - 5:30 p.m.**

**Location:** Convention Ctr.

**Room:** 123

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA II

## 470 Fish, Cars and Recursion

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Pamela Rawson, pamelarawson@gmail.com, Poland Regional High School, Scarborough, ME, USA*

The Common Core State Standards for Mathematics include an increased emphasis on modeling. Participants in this session will use recursive formulas to model the population in a fish pond or an automobile payment plan. Participants will also learn how to use the TI-Nspire™ CAS Handheld spreadsheets and graphs to create these recursive models.

**4:00 p.m. - 5:30 p.m.**

**Location:** Convention Ctr.

**Room:** 125

*Seats: 80*

*90-Minute Hands-On*

ALGEBRA II

## 471 Hands On, Thumbs On, Minds On

*Jean McKenny, jmckenny@together.net, Derby, VT, USA*

Summer Math Camp can provide students with rich math experiences. Participants will learn about a summer math camp designed to enrich student learning. Users of any Texas Instruments Education Technology graphing calculators and TI-Nspire™ Technology are welcome. Bring a thumb drive or laptop, and I will share activities.

**4:00 p.m. - 5:30 p.m.**

**Location:** Convention Ctr.

**Room:** 126 A

*Seats: 180*

*90-Minute Lecture/Demonstration*

GENERAL INTEREST

## 472 Making Connections in the Trigonometry Classroom with the TI-Nspire™ Handheld

*TI-Nspire™ CX Handheld*

*Scott Knapp, sknapp@glenbrook225.org, Glenbrook North High School, Northbrook, IL, USA*

Be Nspired by TI-Nspire™ Activities that have helped my students make deeper connections between trig lessons and units. Topics include the unit circle, trig function graphing, inverse trig functions, the Law of Cosines and polar graphing. Leave with activities and demonstrations that are classroom-ready and proven to enrich student learning.

**4:00 p.m. - 5:30 p.m.**

**Location:** Convention Ctr.

**Room:** 126 B

*Seats: 60*

*90-Minute Hands-On*

PRECALCULUS

## 473 Take a Bite Out of the Common Core with the TI-84 Plus C Silver Edition Graphing Calculator

*TI-84 Plus C Silver Edition Graphing Calculator*

*Sherri Abel, sherriabel1014@gmail.com, Legacy Charter School, Greenville, SC, USA*

Worried about the Common Core? Learn how data collection and analysis apps like the CBR 2™, devices like temperature probes and other technologies can be used with the TI-84 Plus C Silver Edition Graphing Calculator to demonstrate to students how math is used in the real world. Participants will use the probes to collect data that the whole group will analyze. Come prepared to have fun!

**4:00 p.m. - 5:30 p.m.**

**Location:** Marriott

**Room:** Franklin 1

*Seats: 60*

*90-Minute Hands-On*

ALGEBRA I



## **474 Using the TI-84 Plus C Silver Edition Graphing Calculator to Connect Functions and the Real World**

*TI-84 Plus C Silver Edition Graphing Calculator*

*Gloria Barrett, barrett@ncssm.edu, North Carolina School of Science and Mathematics, Pittsboro, NC, USA*

Activities requiring students to find functions to approximate real-world data are effective in helping students develop appreciation for the various functions they study throughout the secondary curriculum. In this session we will use a variety of techniques to find models for bivariate data, including free-hand fits based on transformations of toolkit functions and the built-in curve fitting functionality available on the TI-84 Plus C Silver Edition Graphing Calculator.

**4:00 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 2**

*Seats: 60*

*90-Minute Hands-On*

PRECALCULUS

## **475 That's the Way the Ball Bounces**

*TI-84 Plus Silver Edition Graphing Calculator*

*Michelle Merriweather, mmerriweather@cnr.edu, The College of New Rochelle, New Rochelle, NY, USA*

This session will demonstrate how to collect data to study functions using the TI-84 Plus Silver Edition Graphing Calculator. We will use a bouncing ball to study quadratic functions, temperature to study exponential functions and a pH probe to examine power functions.

**4:00 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 4**

*Seats: 60*

*90-Minute Hands-On*

PRECALCULUS

## **477 Number Theoretic Programs for the TI-89 Titanium Graphing Calculator**

*TI-89 Titanium Graphing Calculator*

*Jay Schiffman, schiffman@rowan.edu, Rowan University, Glassboro, NJ, USA*

The TI-89 Titanium Graphing Calculator enables one to write neat programs amenable to supplement a course in elementary number theory. In this hands-on workshop, participants will explore such ideas as Goldbach's Conjecture, the Collatz Problem, the twin prime conjecture, Mersenne Primes leading to even perfect numbers as well as divisibility and periodicity ideas involving recursive sequences. This can all be accomplished using easily written user defined functions. Please join us and view technology as an additional representation with our handheld in a setting that is suitable for pre-service, in-service and experienced teachers alike.

**4:00 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 6**

*Seats: 60*

*90-Minute Hands-On*

CAS

## **479 Favorite CAS Activities That Integrate Algebra and Geometry Using the TI-Nspire™ Technology**

*TI-Nspire™ CX CAS Handheld, TI-Nspire™ CX Navigator™ System*

*Tom Reardon, tom@tomreardon.com, Fitch High School/Youngstown State University, Poland, OH, USA*

This is a cool way to learn and teach. Have you your students investigate a geometry activity — hands-on, interactively and self-paced. Then have them test and generate their hypotheses and prove their results using coordinate algebra using CAS to assist. They are still doing the thinking, the logic, the investigating and the problem solving, but using CAS to do the difficult mathematics. We will also do the activity where your students develop and prove the distance from a point to a line formula. Lots of great mathematics in these activities. And some surprising, fascinating results.

**4:00 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 8**

*Seats: 60*

*90-Minute Hands-On*

CAS

## **480 Teaching and Learning with CAS Using the TI-Nspire™ CAS Handheld**

*TI-Nspire™ CX CAS Handheld*

*Tony Farrell, afarrell@penncharter.com, The William Penn Charter School, Philadelphia, PA, USA*

This session will demonstrate how a Computer Algebra System can be used to teach concepts and skills in Algebra, Precalculus and Calculus. Participants will be given an introduction to the TI-Nspire™ CAS Handheld and able to use the device during the presentation.

**4:00 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 9**

*Seats: 60*

*90-Minute Hands-On*

CAS

## **482 Two, Four Six, Eight: the TI-73 Explorer™ Graphing Calculator is Beyond Great**

*TI-73 Explorer™ Graphing Calculator*

*Terrie Poehl, poehl@nsula.edu, Northwestern State University of Louisiana, Natchitoches, LA, USA*

The focus of this session is to use the TI-73 Explorer™ Graphing Calculator as an effective tool for learning middle grades mathematics in order to prepare students for different technology in high school. The activities presented are based on 5Es Learning Cycle Model — Engagement, Exploration, Explanation, Elaboration, Evaluation — with the newly added e-search or e-learning level.

**4:00 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 11**

*Seats: 60*

*90-Minute Hands-On*

MIDDLE GRADES MATH

## **483 What's an English Teacher Doing in a Mathematics Classroom?**

*Ray Williams, rwilliams@stmarks.wa.edu.au, St. Mark's Anglican Community School, Perth, AUSTRALIA*

Key areas of the English Curriculum — picture books, poetry analysis, satirical story and a novel — were explored in the mathematics classroom as part of bigger pedagogical project provided unexpected and eye-opening results for the mathematics and English teachers involved.

**4:00 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 12**

*Seats: 60*

*90-Minute Lecture/Demonstration*

MIDDLE GRADES MATH

## **484 Meeting Middle School Students' Differentiated Needs Using the TI-84 Plus Silver Edition Graphing Calculator**

*TI-84 Plus Silver Edition Graphing Calculator, TI-Navigator™ Classroom Learning System*

*Pareesa Shirazi, pshirazi@ti.com, Albuquerque, NM, USA*

Do you ever wish you had more time or better support in your classroom to meet each student's needs? In this session you will learn how TI-Navigator™ Classroom Learning System and StudyCards™ app can assist you. Experience hands-on training and practice using the StudyCard™ app, one of the most valuable and often overlooked teaching tools available on the TI-84 Plus Silver Edition and TI-73 Explorer™ graphing calculators to reinforce your teaching, and support the differentiated learning of your students.

**4:00 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Franklin 13**

*Seats: 60*

*90-Minute Hands-On*

MIDDLE GRADES MATH

## **485 Draw Something: Program your Graphing Calculator to Create a Drawing**

*TI-84 Plus Silver Edition Graphing Calculator*

*Ann L. Bailey, ann.bailey@risd.org, Richardson North Junior High, Richardson, TX, USA*

This project has become the highlight of our Algebra I year. You will learn how to program your TI-83 Plus and TI-84 Plus Silver Edition graphing calculators based on a coordinate plane drawing and its linear equations and domains. Students have created phenomenal drawings while learning a valuable programming skill as well as gaining a thorough understanding of linear equations. This lesson can be easily differentiated from a very basic drawing (10 lines) to highly complicated drawings (100 lines or more) for your top students. This is a hands-on session, and you'll walk away with everything you need for a fantastic project.

**4:00 p.m. - 5:30 p.m.**

**Location: Marriott**

**Room: Salon J**

*Seats: 60*

*90-Minute Hands-On*

ALGEBRA I

# Presenter Index



# Presenter Index

## A

| Name                   | Subject            | No. | Day      | Time                    | Location        | Room       |
|------------------------|--------------------|-----|----------|-------------------------|-----------------|------------|
| Abel, Sherri           | General Math       | 17  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 118 C      |
| Abel, Sherri           | Algebra I          | 473 | Saturday | 4:00 p.m. - 5:30 p.m.   | Marriott        | Franklin 1 |
| Adams, Rob             | Biology            | 6   | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 113 A      |
| Adsit, Lynn            | Algebra II         | 423 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 123        |
| Allard-Martinez, Katie | Algebra I          | 151 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 120 C      |
| Allred, Gina           | Middle Grades Math | 78  | Friday   | 11:30 a.m. - 12:30 p.m. | Marriott        | Franklin 4 |
| Allred, Gina           | General Interest   | 160 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 126 A      |
| Almon, Matt            | Statistics         | 286 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 122 A      |
| Alves, Paul            | Calculus           | 319 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 117        |
| Amstutz, Andrew        | Algebra II         | 288 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 123        |
| Anderson, Rodney       | Technology         | 329 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 121 B      |
| Antinone, Linda        | Physics            | 137 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 113 C      |
| Antinone, Linda        | Precalculus        | 427 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 126 B      |
| Apicella, Linda        | Algebra I          | 124 | Friday   | 1:30 p.m. - 2:30 p.m.   | Marriott        | Franklin 8 |
| Armontrout, Ronald     | Algebra II         | 425 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 125        |
| Arnold, Steve          | Authoring          | 147 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 119 A      |
| Arnold, Steve          | CAS                | 251 | Saturday | 8:00 a.m. - 9:30 a.m.   | Marriott        | Franklin 5 |
| Artigue, Michèle       | CAS                | 300 | Saturday | 9:45 a.m. - 10:45 a.m.  | Marriott        | Franklin 9 |
| Ashurst, Johnny        | Algebra I          | 81  | Friday   | 11:30 a.m. - 12:30 p.m. | Marriott        | Franklin 8 |
| Ashurst, Johnny        | Geometry           | 375 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 121 C      |
| Axley, Jennifer        | Algebra II         | 334 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 124        |

## B

|                    |              |     |          |                         |                 |             |
|--------------------|--------------|-----|----------|-------------------------|-----------------|-------------|
| Baars, Cathy       | Physics      | 448 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 113 C       |
| Backsen, Chad      | Biology      | 266 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 113 A       |
| Bailey, Ann L.     | Algebra I    | 485 | Saturday | 4:00 p.m. - 5:30 p.m.   | Marriott        | Salon J     |
| Baker, Edsel       | Statistics   | 36  | Friday   | 10:15 a.m. - 11:15 a.m. | Marriott        | Franklin 6  |
| Baker, Edsel       | Geometry     | 349 | Saturday | 11:00 a.m. - 12:00 p.m. | Marriott        | Franklin 13 |
| Baker, Pamela      | General Math | 367 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 118 C       |
| Bambrick, Margaret | Geometry     | 284 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 121 B       |

# Presenter Index

| Name                | Subject            | No. | Day      | Time                    | Location        | Room        |
|---------------------|--------------------|-----|----------|-------------------------|-----------------|-------------|
| Barnard, Jane       | Middle Grades Math | 259 | Saturday | 8:00 a.m. - 9:30 a.m.   | Marriott        | Franklin 13 |
| Barnes, Timothy     | Statistics         | 376 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 122 A       |
| Barrera, Sonja      | Algebra I          | 210 | Friday   | 4:30 p.m. - 5:30 p.m.   | Marriott        | Franklin 8  |
| Barrett, Gloria     | Precalculus        | 162 | Friday   | 2:45 p.m. - 4:15 p.m.   | Marriott        | Franklin 1  |
| Barrett, Gloria     | Precalculus        | 474 | Saturday | 4:00 p.m. - 5:30 p.m.   | Marriott        | Franklin 2  |
| Barton, Christy     | Biology            | 401 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 113 A       |
| Barton, Ray         | Calculus           | 143 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 117         |
| Barton, Ray         | Statistics         | 269 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 114         |
| Basurto, Eduardo    | Middle Grades Math | 127 | Friday   | 1:30 p.m. - 2:30 p.m.   | Marriott        | Franklin 11 |
| Bauguss, Sarah      | Middle Grades Math | 84  | Friday   | 11:30 a.m. - 12:30 p.m. | Marriott        | Franklin 11 |
| Bauguss, Sarah      | Technology         | 174 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 110 AB      |
| Beaudin, Michel     | Calculus           | 274 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 117         |
| Becvar, Tom         | Calculus           | 229 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 117         |
| Behling, Kathryn    | General Math       | 188 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 118 B       |
| Bell, Murney        | Administrator      | 397 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 110 AB      |
| Bellman, Allan      | Algebra II         | 243 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 123         |
| Bellman, Allan      | Technology         | 404 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 114         |
| Benzing, Andrew     | Technology         | 52  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 114         |
| Benzing, Andrew     | Algebra II         | 378 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 123         |
| Benzon, Maria       | Middle Grades Math | 437 | Saturday | 2:15 p.m. - 3:45 p.m.   | Marriott        | Franklin 11 |
| Berberian, Josh     | Precalculus        | 35  | Friday   | 10:15 a.m. - 11:15 a.m. | Marriott        | Franklin 4  |
| Beswick, Gloria     | Middle Grades Math | 128 | Friday   | 1:30 p.m. - 2:30 p.m.   | Marriott        | Franklin 12 |
| Bevelacqua, Mike    | Statistics         | 466 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 122 A       |
| Bird, Sean          | Calculus           | 409 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 117         |
| Bonds, Michelle     | Technology         | 406 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 115 B       |
| Bonneau, Jacklyn    | General Science    | 87  | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 109 B       |
| Bonneau, Jacklyn    | General Science    | 306 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 109 B       |
| Bradley, Causaundra | Algebra I          | 371 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 120 B       |

# Presenter Index

| Name                     | Subject            | No. | Day      | Time                    | Location        | Room        |
|--------------------------|--------------------|-----|----------|-------------------------|-----------------|-------------|
| Brese, Mary A.           | Assessment         | 354 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 112 A       |
| Brewer, Wallece          | General Interest   | 458 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 119 A       |
| Briceño, Eduardo         | Calculus           | 186 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 117         |
| Broberg, Diane           | Algebra II         | 119 | Friday   | 1:30 p.m. - 2:30 p.m.   | Marriott        | Franklin 1  |
| Broderick, Stephen       | Physics            | 263 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 111 B       |
| Brokes, Joy              | Precalculus        | 204 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 126 B       |
| Brooks, Patricia         | General Interest   | 63  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 120 A       |
| Brown, Curtis            | General Math       | 134 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 112 B       |
| Browne, Ellen            | Authoring          | 56  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 116         |
| Browne, Ellen            | General Math       | 232 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 118 C       |
| Browning, Fred           | Physics            | 94  | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 113 C       |
| Bruce, Sharon            | Statistics         | 131 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 110 AB      |
| Buescher, Michael        | CAS                | 298 | Saturday | 9:45 a.m. - 10:45 a.m.  | Marriott        | Franklin 7  |
| Buescher, Michael        | CAS                | 388 | Saturday | 1:00 p.m. - 2:00 p.m.   | Marriott        | Franklin 7  |
| Burbano, Jaime           | Geometry           | 24  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 121 B       |
| Burkholder, Marsha       | Elementary Math    | 169 | Friday   | 2:45 p.m. - 4:15 p.m.   | Marriott        | Franklin 10 |
| Burkholder, Marsha       | Elementary Math    | 256 | Saturday | 8:00 a.m. - 9:30 a.m.   | Marriott        | Franklin 10 |
| Burr, Mary               | Middle Grades Math | 302 | Saturday | 9:45 a.m. - 10:45 a.m.  | Marriott        | Franklin 11 |
| Burrill, Gail            | Algebra I          | 236 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 120 B       |
| Byer, Becky              | General Math       | 412 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 118 C       |
| Cain, Prudence           | Precalculus        | 75  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 126 B       |
| Caison, Becky            | Algebra I          | 167 | Friday   | 2:45 p.m. - 4:15 p.m.   | Marriott        | Franklin 8  |
| Campe, Karen             | Geometry           | 250 | Saturday | 8:00 a.m. - 9:30 a.m.   | Marriott        | Franklin 4  |
| Campe, Karen             | Geometry           | 420 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 121 C       |
| Canales-Pastrana, Rafael | Statistics         | 331 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 122 A       |
| Carlson, Veronica        | General Math       | 145 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 118 B       |
| Caroscio, William        | General Interest   | 156 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 122 B       |

C



# Presenter Index

| Name               | Subject               | No. | Day      | Time                    | Location        | Room        |
|--------------------|-----------------------|-----|----------|-------------------------|-----------------|-------------|
| Caroscio, William  | Geometry              | 239 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 121 B       |
| Carter, Vicki      | Calculus              | 57  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 117         |
| Carter, Vicki      | General Math          | 314 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 114         |
| Casey, Patricia    | Calculus              | 14  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 117         |
| Casey, Ruth        | Algebra I             | 108 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 120 C       |
| Cauffield, Tom     | Middle Grades Science | 180 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 113 C       |
| Chao, Mayra        | Middle Grades Math    | 348 | Saturday | 11:00 a.m. - 12:00 p.m. | Marriott        | Franklin 12 |
| Chapman, Louise    | General Interest      | 74  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 126 A       |
| Chapman, Louise    | General Science       | 351 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 109 B       |
| Chaves, Edward     | Administrator         | 262 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 110 AB      |
| Chirles, Jennifer  | General Math          | 275 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 118 A       |
| Churchill, Melissa | Geometry              | 197 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 121 C       |
| Cichocki, Sharon   | Algebra II            | 76  | Friday   | 11:30 a.m. - 12:30 p.m. | Marriott        | Franklin 1  |
| Cichocki, Sharon   | Algebra II            | 338 | Saturday | 11:00 a.m. - 12:00 p.m. | Marriott        | Franklin 1  |
| Cimino, Mike       | Middle Grades Science | 51  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 113 C       |
| Clark, Sherrina    | Assessment            | 47  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 112 A       |
| Cloud, Cory        | Algebra II            | 114 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 123         |
| Cockburn, Karen    | Middle Grades Math    | 170 | Friday   | 2:45 p.m. - 4:15 p.m.   | Marriott        | Franklin 11 |
| Coleman, Thomas    | General Interest      | 70  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 122 B       |
| Collins, Ken       | Calculus              | 265 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 112 B       |
| Conzemius, Lisa    | Calculus              | 364 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 117         |
| Corn, Jeff         | Algebra II            | 333 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 123         |
| Coronado, Cheryl   | Biology               | 311 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 113 A       |
| Craddock, Kari     | General Math          | 324 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 119 B       |
| Cucci, Audrey      | General Math          | 15  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 118 A       |
| Cucci, Audrey      | General Interest      | 62  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 119 B       |
| Cuoco, Al          | CAS                   | 341 | Saturday | 11:00 a.m. - 12:00 p.m. | Marriott        | Franklin 5  |

# Presenter Index

## D

| Name                | Subject            | No. | Day      | Time                    | Location        | Room       |
|---------------------|--------------------|-----|----------|-------------------------|-----------------|------------|
| Dahan, Jean-Jacques | Geometry           | 465 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 121 C      |
| Dailey, Sharon      | Algebra II         | 157 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 123        |
| Damaske, Jane       | General Interest   | 414 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 119 B      |
| Daniels, Hugh       | Algebra II         | 115 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 124        |
| Davidian, Ann       | Precalculus        | 32  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 126 B      |
| Davidian, Ann       | Algebra II         | 159 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 125        |
| Davis, Ronda        | Algebra II         | 211 | Friday   | 4:30 p.m. - 5:30 p.m.   | Marriott        | Franklin 9 |
| Day, Judy           | Biology            | 135 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 113 A      |
| Day, Judy           | Biology            | 221 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 113 A      |
| Day, Judy           | Biology            | 446 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 113 A      |
| Decovsky, Fred      | Middle Grades Math | 248 | Saturday | 8:00 a.m. - 9:30 a.m.   | Marriott        | Franklin 1 |
| Decovsky, Fred      | Middle Grades Math | 383 | Saturday | 1:00 p.m. - 2:00 p.m.   | Marriott        | Franklin 1 |
| Deichert, Deana     | Technology         | 316 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 115 B      |
| DePeau, Edward      | Algebra I          | 283 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 121 A      |
| Dick, Tom           | General Math       | 144 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 118 A      |
| Disher, Fan         | Middle Grades Math | 120 | Friday   | 1:30 p.m. - 2:30 p.m.   | Marriott        | Franklin 2 |
| Disher, Fan         | Algebra II         | 293 | Saturday | 9:45 a.m. - 10:45 a.m.  | Marriott        | Franklin 1 |
| Dodd, Greg          | Chemistry          | 136 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 113 B      |
| Dodd, Greg          | General Science    | 216 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 109 B      |
| Dodd, Greg          | General Science    | 449 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 114        |
| Dominguez, Angeles  | Physics            | 403 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 113 C      |
| Donovan, Dennis     | Algebra II         | 245 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 125        |
| Dormer, Dina        | Chemistry          | 356 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 113 A      |
| Drougel, Marc       | Chemistry          | 447 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 113 B      |
| Dunkle, Douglas     | Calculus           | 454 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 117        |
| Eaker, C.W.         | General Science    | 130 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 109 B      |
| Eaker, C.W.         | Chemistry          | 402 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 113 B      |
| Ealy, Jim           | Chemistry          | 312 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 113 B      |

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# Presenter Index

| Name                      | Subject            | No. | Day      | Time                    | Location        | Room        |
|---------------------------|--------------------|-----|----------|-------------------------|-----------------|-------------|
| Ealy, Julie B.            | Chemistry          | 357 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 113 B       |
| Edgar, Katy               | Geometry           | 25  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 121 C       |
| Edwards, Cindy            | Algebra II         | 305 | Saturday | 9:45 a.m. - 10:45 a.m.  | Marriott        | Salon J     |
| Edwards, Lori             | Algebra I          | 48  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 112 B       |
| Edwards, Sheryl           | Algebra I          | 64  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 120 B       |
| Ellis, Wade               | Geometry           | 154 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 121 C       |
| England, Katie            | Technology         | 231 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 118 B       |
| Espinosa Reina, Jose Luis | Precalculus        | 337 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 126 B       |
| Everding, Sherry          | Algebra I          | 238 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 121 A       |
| Fagan, Patsy              | Middle Grades Math | 171 | Friday   | 2:45 p.m. - 4:15 p.m.   | Marriott        | Franklin 12 |
| Faitel, Terri             | Algebra I          | 281 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 120 B       |
| Farahani, Beverly         | Algebra II         | 29  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 124         |
| Farrell, Tony             | CAS                | 480 | Saturday | 4:00 p.m. - 5:30 p.m.   | Marriott        | Franklin 9  |
| Felsager, Bjørn           | Geometry           | 330 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 121 C       |
| Ferneyhough, Fred         | CAS                | 386 | Saturday | 1:00 p.m. - 2:00 p.m.   | Marriott        | Franklin 5  |
| Ferneyhough, Lynda        | CAS                | 296 | Saturday | 9:45 a.m. - 10:45 a.m.  | Marriott        | Franklin 5  |
| Flynn, Peter              | CAS                | 431 | Saturday | 2:15 p.m. - 3:45 p.m.   | Marriott        | Franklin 5  |
| Foerster, Paul            | Precalculus        | 385 | Saturday | 1:00 p.m. - 2:00 p.m.   | Marriott        | Franklin 4  |
| Foletta, Gina             | Precalculus        | 292 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 126 B       |
| Foley, Greg               | Technology         | 317 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 115 C       |
| Fotsch, Fred              | Technology         | 400 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 112 B       |
| Fox, Ray                  | Statistics         | 26  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 122 A       |
| Fuller, Roger             | General Interest   | 426 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 126 A       |
| Gallitano, Gail           | Statistics         | 80  | Friday   | 11:30 a.m. - 12:30 p.m. | Marriott        | Franklin 7  |
| Garcia, Miguel            | Middle Grades Math | 257 | Saturday | 8:00 a.m. - 9:30 a.m.   | Marriott        | Franklin 11 |
| Garneau, Marc             | Programming        | 99  | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 116         |
| Garneau, Marc             | Authoring          | 228 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 116         |
| Gasque, Elizabeth         | Algebra I          | 206 | Friday   | 4:30 p.m. - 5:30 p.m.   | Marriott        | Franklin 2  |

# Presenter Index

H

| Name                | Subject            | No. | Day      | Time                    | Location        | Room        |
|---------------------|--------------------|-----|----------|-------------------------|-----------------|-------------|
| Gasque, Elizabeth   | Algebra I          | 373 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 121 A       |
| Giannetto, Mary Lou | General Interest   | 37  | Friday   | 10:15 a.m. - 11:15 a.m. | Marriott        | Franklin 7  |
| Godbold, Landy      | Algebra II         | 73  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 125         |
| Goetz, Michelle     | Geometry           | 240 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 121 C       |
| Gorsuch, Rachael    | Geometry           | 374 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 121 B       |
| Gough, Jill         | General Interest   | 422 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 122 B       |
| Green, Herb         | Technology         | 272 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 115 C       |
| Green, Tom          | General Science    | 46  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 111 B       |
| Griffith, Linda     | Authoring          | 13  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 116         |
| Guntharp, Marsha    | Precalculus        | 279 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 119 B       |
| Haas, Karlheinz     | Physics            | 441 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 109 B       |
| Hale, Kathy         | Geometry           | 153 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 121 B       |
| Hallas, David       | Technology         | 2   | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 110 AB      |
| Hanna, John         | Programming        | 18  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 119 A       |
| Hanna, John         | CAS                | 297 | Saturday | 9:45 a.m. - 10:45 a.m.  | Marriott        | Franklin 6  |
| Harris, Donna       | Middle Grades Math | 392 | Saturday | 1:00 p.m. - 2:00 p.m.   | Marriott        | Franklin 11 |
| Harris, Pam         | Algebra I          | 23  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 121 A       |
| Haskins, Elizabeth  | Geometry           | 295 | Saturday | 9:45 a.m. - 10:45 a.m.  | Marriott        | Franklin 4  |
| Haskins, Elizabeth  | General Math       | 365 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 118 A       |
| Haskins, Jim        | Algebra I          | 77  | Friday   | 11:30 a.m. - 12:30 p.m. | Marriott        | Franklin 2  |
| Heid, M. Kathleen   | CAS                | 299 | Saturday | 9:45 a.m. - 10:45 a.m.  | Marriott        | Franklin 8  |
| Helm, Blake         | Middle Grades Math | 214 | Friday   | 4:30 p.m. - 5:30 p.m.   | Marriott        | Franklin 12 |
| Hess, Alice         | Algebra II         | 38  | Friday   | 10:15 a.m. - 11:15 a.m. | Marriott        | Franklin 8  |
| Hester, Melanie     | Biology            | 280 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 120 A       |
| Hicks, Judy         | Algebra II         | 294 | Saturday | 9:45 a.m. - 10:45 a.m.  | Marriott        | Franklin 2  |
| Highman, Della      | Algebra I          | 193 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 120 B       |
| Hocutt, Sandra      | Geometry           | 110 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 121 B       |
| Holzbog, Charla     | General Math       | 5   | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 112 B       |

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| Name                | Subject            | No. | Day      | Time                    | Location        | Room        |
|---------------------|--------------------|-----|----------|-------------------------|-----------------|-------------|
| Holzbog, Charla     | General Math       | 177 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 112 B       |
| Hopley, Nevil       | General Math       | 101 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 118 A       |
| Hopley, Nevil       | CAS                | 342 | Saturday | 11:00 a.m. - 12:00 p.m. | Marriott        | Franklin 6  |
| Horstman, Sheila    | Algebra II         | 125 | Friday   | 1:30 p.m. - 2:30 p.m.   | Marriott        | Franklin 9  |
| Houston, Michael    | Algebra I          | 328 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 121 A       |
| Howe, Susan         | Geometry           | 430 | Saturday | 2:15 p.m. - 3:45 p.m.   | Marriott        | Franklin 4  |
| Hoyt, Marti         | Algebra I          | 109 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 121 A       |
| Hudson, Valerie     | Middle Grades Math | 213 | Friday   | 4:30 p.m. - 5:30 p.m.   | Marriott        | Franklin 11 |
| Hudson, Valerie     | Middle Grades Math | 439 | Saturday | 2:15 p.m. - 3:45 p.m.   | Marriott        | Franklin 13 |
| Hurley, Scott       | Biology            | 178 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 113 A       |
| Iacuone, Leann      | Administrator      | 307 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 110 AB      |
| Ilaria, Dan         | Technology         | 362 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 115 C       |
| Indeck, Ken         | CAS                | 255 | Saturday | 8:00 a.m. - 9:30 a.m.   | Marriott        | Franklin 9  |
| Jackson, Melissa    | Middle Grades Math | 43  | Friday   | 10:15 a.m. - 11:15 a.m. | Marriott        | Franklin 13 |
| Jakucyn, Natalie    | Statistics         | 155 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 122 A       |
| Jensen, Lauren      | Algebra I          | 418 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 121 A       |
| Johnson, Denise     | Middle Grades Math | 129 | Friday   | 1:30 p.m. - 2:30 p.m.   | Marriott        | Franklin 13 |
| Johnston, Ellen     | Geometry           | 464 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 121 B       |
| Jones, Jean Annette | Algebra I          | 22  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 120 C       |
| Jones, Tammy L      | Elementary Math    | 436 | Saturday | 2:15 p.m. - 3:45 p.m.   | Marriott        | Franklin 10 |
| Kachur, Jess        | General Math       | 191 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 119 B       |
| Kelly, Brendan      | Algebra II         | 335 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 125         |
| Kemp, Andy          | Technology         | 9   | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 114         |
| Kemp, Andy          | Authoring          | 408 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 116         |
| Kennedy, Ron        | General Math       | 277 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 118 C       |
| Klein, Ray          | CAS                | 387 | Saturday | 1:00 p.m. - 2:00 p.m.   | Marriott        | Franklin 6  |
| Knapp, Scott        | Precalculus        | 472 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 126 B       |
| Koehler, Mike       | Statistics         | 249 | Saturday | 8:00 a.m. - 9:30 a.m.   | Marriott        | Franklin 2  |

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| Name                   | Subject          | No. | Day      | Time                    | Location        | Room       |
|------------------------|------------------|-----|----------|-------------------------|-----------------|------------|
| Kucera, Lee            | Statistics       | 421 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 122 A      |
| Kula, Deborah          | Precalculus      | 247 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 126 B      |
| LaMaster, John         | General Math     | 384 | Saturday | 1:00 p.m. - 2:00 p.m.   | Marriott        | Franklin 2 |
| LaMaster, John         | General Math     | 429 | Saturday | 2:15 p.m. - 3:45 p.m.   | Marriott        | Franklin 2 |
| Lancaster, Ron         | General Math     | 16  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 118 B      |
| Lancaster, Ron         | General Interest | 181 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 114        |
| Langhorn, Christopher  | Programming      | 453 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 116        |
| Lapp, Doug             | Algebra II       | 28  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 123        |
| Laughbaum, Ed          | Algebra I        | 395 | Saturday | 1:00 p.m. - 2:00 p.m.   | Marriott        | Salon J    |
| Leaman, Kara           | Assessment       | 309 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 112 A      |
| Lepeska, Jon           | CAS              | 435 | Saturday | 2:15 p.m. - 3:45 p.m.   | Marriott        | Franklin 9 |
| Lesniewski, Ray        | Chemistry        | 50  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 113 B      |
| Lesniewski, Ray        | Chemistry        | 267 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 113 B      |
| Lesniewski, Ray        | General Science  | 359 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 114        |
| Levine-Wissing, Robin  | Precalculus      | 161 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 126 B      |
| Liptock, Jamie         | Geometry         | 67  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 121 B      |
| Loeblein, Trish        | Technology       | 98  | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 115 C      |
| Lopez-Zamudio, Armando | Statistics       | 241 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 122 A      |
| Lukens, Jeff           | Biology          | 49  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 113 A      |
| Lukens, Jeff           | General Science  | 353 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 111 B      |
| Lum, Lewis             | CAS              | 343 | Saturday | 11:00 a.m. - 12:00 p.m. | Marriott        | Franklin 7 |
| Lutz, Michael          | Technology       | 140 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 115 B      |
| Lyublinskaya, Irina    | Technology       | 164 | Friday   | 2:45 p.m. - 4:15 p.m.   | Marriott        | Franklin 4 |
| Mabbott, Arthur        | Precalculus      | 138 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 114        |
| MacKay, Stephanie      | General Math     | 59  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 118 B      |
| Maestas, Abel          | Statistics       | 264 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 112 A      |
| Magner, Philip         | Algebra I        | 417 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 120 C      |



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| Name                          | Subject            | No. | Day      | Time                    | Location        | Room        |
|-------------------------------|--------------------|-----|----------|-------------------------|-----------------|-------------|
| Mahoney, John                 | Statistics         | 69  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 122 A       |
| Mankus, Margo                 | Algebra I          | 205 | Friday   | 4:30 p.m. - 5:30 p.m.   | Marriott        | Franklin 1  |
| Mankus, Margo                 | Algebra I          | 323 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 119 A       |
| Mankus, Margo                 | Algebra I          | 428 | Saturday | 2:15 p.m. - 3:45 p.m.   | Marriott        | Franklin 1  |
| Mara, Pat                     | Authoring          | 104 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 119 A       |
| Marino, George                | Programming        | 273 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 116         |
| Martain, Jane                 | General Math       | 455 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 118 A       |
| Martín Perico, Juana Yadira   | General Math       | 58  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 118 A       |
| McCalla, Jeff                 | Assessment         | 399 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 112 A       |
| McClatchy, Steve              | Administrator      | 217 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 110 AB      |
| McGaw, Lisa                   | Chemistry          | 91  | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 112 B       |
| McKenny, Jean                 | General Interest   | 471 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 126 A       |
| McKinley, Kathleen            | Technology         | 407 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 115 C       |
| McMullin, Lin                 | CAS                | 389 | Saturday | 1:00 p.m. - 2:00 p.m.   | Marriott        | Franklin 8  |
| McSpadden, Dona               | Technology         | 97  | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 115 B       |
| Merriweather, Michelle        | Precalculus        | 475 | Saturday | 4:00 p.m. - 5:30 p.m.   | Marriott        | Franklin 4  |
| Metts-Bell, Beatrice          | Algebra I          | 462 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 120 C       |
| Miller, Lindsay               | Algebra I          | 194 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 120 C       |
| Miltenberg, JoAnn             | Technology         | 226 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 115 B       |
| Mitchell, Christopher         | Programming        | 318 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 116         |
| Mitchener, Jan                | Precalculus        | 340 | Saturday | 11:00 a.m. - 12:00 p.m. | Marriott        | Franklin 4  |
| Mize, Josh                    | General Interest   | 291 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 126 A       |
| Montero Gaona, Manuel Antonio | Middle Grades Math | 438 | Saturday | 2:15 p.m. - 3:45 p.m.   | Marriott        | Franklin 12 |
| Montgomery, Scott             | Algebra I          | 195 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 121 A       |
| Morstein, Todd                | Chemistry          | 93  | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 113 B       |
| Morstein, Todd                | Chemistry          | 222 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 113 B       |
| Moskowitz, Stuart             | Elementary Math    | 40  | Friday   | 10:15 a.m. - 11:15 a.m. | Marriott        | Franklin 10 |

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| Name                    | Subject               | No. | Day      | Time                    | Location        | Room        |
|-------------------------|-----------------------|-----|----------|-------------------------|-----------------|-------------|
| Moya, Frank             | CAS                   | 253 | Saturday | 8:00 a.m. - 9:30 a.m.   | Marriott        | Franklin 7  |
| Murillo Martinez, Sofia | General Math          | 276 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 118 B       |
| Murrell, Mary Beth      | General Interest      | 163 | Friday   | 2:45 p.m. - 4:15 p.m.   | Marriott        | Franklin 2  |
| Nakamoto, Jim           | Algebra II            | 30  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 125         |
| Narasimhan, Reva        | Algebra II            | 350 | Saturday | 11:00 a.m. - 12:00 p.m. | Marriott        | Salon J     |
| Norrell, Toni           | Algebra II            | 379 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 124         |
| Nutt, Deb               | Assessment            | 444 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 112 A       |
| O'Brien, Ray            | Middle Grades Math    | 394 | Saturday | 1:00 p.m. - 2:00 p.m.   | Marriott        | Franklin 13 |
| Olson, Judith           | Algebra I             | 19  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 119 B       |
| Olson, Melfried         | Middle Grades Math    | 370 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 120 A       |
| Owens, Matthew          | Precalculus           | 118 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 126 B       |
| Page, Alicia            | Administrator         | 113 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 122 B       |
| Pappo, Stan             | Geometry              | 285 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 121 C       |
| Paris, Lois             | Geometry              | 65  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 120 C       |
| Parker, Marilyn         | General Math          | 411 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 118 B       |
| Parr, Andi              | General Math          | 321 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 118 B       |
| Parr, Richard           | Precalculus           | 207 | Friday   | 4:30 p.m. - 5:30 p.m.   | Marriott        | Franklin 4  |
| Pennell, Adam           | Administrator         | 442 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 110 AB      |
| Perez, Gustavo          | General Interest      | 336 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 126 A       |
| Perry, Bryson           | Programming           | 20  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 120 A       |
| Peterman, Brenda        | General Science       | 3   | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 111 B       |
| Peterman, Brenda        | Technology            | 234 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 119 B       |
| Phelps, Steve           | Statistics            | 198 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 122 A       |
| Phelps, Steve           | CAS                   | 434 | Saturday | 2:15 p.m. - 3:45 p.m.   | Marriott        | Franklin 8  |
| Phillips, Ken           | General Interest      | 290 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 125         |
| Phillips, Lisa          | Geometry              | 196 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 121 B       |
| Plein, Tami             | Elementary Math       | 126 | Friday   | 1:30 p.m. - 2:30 p.m.   | Marriott        | Franklin 10 |
| Plein, Tami             | Middle Grades Science | 369 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 119 B       |

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| Name                | Subject            | No. | Day      | Time                    | Location        | Room        |
|---------------------|--------------------|-----|----------|-------------------------|-----------------|-------------|
| Poehl, Terrie       | Middle Grades Math | 482 | Saturday | 4:00 p.m. - 5:30 p.m.   | Marriott        | Franklin 11 |
| Politi, Terry       | Algebra II         | 82  | Friday   | 11:30 a.m. - 12:30 p.m. | Marriott        | Franklin 9  |
| Pollack, Andreas    | General Math       | 95  | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 114         |
| Poss, Debbie        | Algebra II         | 168 | Friday   | 2:45 p.m. - 4:15 p.m.   | Marriott        | Franklin 9  |
| Poulsen, Robyn      | Algebra II         | 244 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 124         |
| Powell, Scott       | Middle Grades Math | 393 | Saturday | 1:00 p.m. - 2:00 p.m.   | Marriott        | Franklin 12 |
| Prince, Marian      | General Math       | 146 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 118 C       |
| Pugliese, Elizabeth | Algebra II         | 158 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 124         |
| Rains, Leann        | Middle Grades Math | 347 | Saturday | 11:00 a.m. - 12:00 p.m. | Marriott        | Franklin 11 |
| Rawson, Pamela      | Algebra II         | 470 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 125         |
| Ray, Max            | General Math       | 322 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 118 C       |
| Reardon, Tom        | General Interest   | 34  | Friday   | 10:15 a.m. - 11:15 a.m. | Marriott        | Franklin 2  |
| Reardon, Tom        | General Interest   | 117 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 126 A       |
| Reardon, Tom        | General Interest   | 224 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 114         |
| Reardon, Tom        | CAS                | 479 | Saturday | 4:00 p.m. - 5:30 p.m.   | Marriott        | Franklin 8  |
| Record, Anthony     | General Interest   | 332 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 122 B       |
| Redmond, Trevor     | Calculus           | 310 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 112 B       |
| Reese, Kimberly     | Precalculus        | 382 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 126 B       |
| Reeves, David       | Algebra I          | 150 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 120 B       |
| Reniewicki, Rob     | Physics            | 8   | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 113 C       |
| Reniewicki, Rob     | General Science    | 396 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 109 B       |
| Rhodes, Matt        | Algebra II         | 71  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 123         |
| Riddle, Heather     | Algebra I          | 21  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 120 B       |
| Riggins, Julie      | Algebra II         | 235 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 120 A       |
| Riker, Susan        | Middle Grades Math | 86  | Friday   | 11:30 a.m. - 12:30 p.m. | Marriott        | Franklin 13 |
| Roberts, Doug       | Algebra I          | 152 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 121 A       |
| Roberts, Ed         | General Science    | 218 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 111 B       |
| Robinson, Delbra    | Algebra II         | 424 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 124         |

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| Name               | Subject            | No. | Day      | Time                    | Location        | Room        |
|--------------------|--------------------|-----|----------|-------------------------|-----------------|-------------|
| Rodgers, Kevin     | Algebra II         | 468 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 123         |
| Rodriguez, Joseph  | General Interest   | 203 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 126 A       |
| Rodriguez, Joseph  | General Interest   | 381 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 126 A       |
| Rossman, Allan     | Statistics         | 112 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 122 A       |
| Rozen, Raymond     | Algebra II         | 202 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 125         |
| Ruda, Chris        | Middle Grades Math | 41  | Friday   | 10:15 a.m. - 11:15 a.m. | Marriott        | Franklin 11 |
| Rudolph, Heidi     | Authoring          | 271 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 115 B       |
| Sanchez, Abby      | Algebra I          | 461 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 120 B       |
| Sanchez, Martin    | Geometry           | 325 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 120 A       |
| Sanchez, Patrick   | Algebra I          | 237 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 120 C       |
| Sapuppo, Ninamarie | Geometry           | 68  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 121 C       |
| Scherer, Jerry     | General Interest   | 242 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 122 B       |
| Schiffman, Jay     | CAS                | 252 | Saturday | 8:00 a.m. - 9:30 a.m.   | Marriott        | Franklin 6  |
| Schiffman, Jay     | CAS                | 432 | Saturday | 2:15 p.m. - 3:45 p.m.   | Marriott        | Franklin 6  |
| Schiffman, Jay     | CAS                | 477 | Saturday | 4:00 p.m. - 5:30 p.m.   | Marriott        | Franklin 6  |
| Schjelderup, Kim   | Calculus           | 100 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 117         |
| Schlemper, Ann     | Algebra I          | 463 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 121 A       |
| Schlueter, Shawn   | Biology            | 92  | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 113 A       |
| Schlueter, Shawn   | Physics            | 358 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 113 C       |
| Scott, David       | Algebra II         | 116 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 125         |
| Shirazi, Pareesa   | Middle Grades Math | 484 | Saturday | 4:00 p.m. - 5:30 p.m.   | Marriott        | Franklin 13 |
| Sikora, Todd       | Statistics         | 121 | Friday   | 1:30 p.m. - 2:30 p.m.   | Marriott        | Franklin 4  |
| Simonick, Lisa     | Algebra I          | 327 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 120 C       |
| Slate, Tracy       | Algebra II         | 289 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 124         |
| Smalley, Eleanor   | General Science    | 261 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 109 B       |
| Smeltz, Doug       | Assessment         | 133 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 112 A       |
| Smith, Beth        | General Math       | 39  | Friday   | 10:15 a.m. - 11:15 a.m. | Marriott        | Franklin 9  |

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| Name                  | Subject            | No. | Day      | Time                    | Location        | Room        |
|-----------------------|--------------------|-----|----------|-------------------------|-----------------|-------------|
| Smith, Beth           | Middle Grades Math | 258 | Saturday | 8:00 a.m. - 9:30 a.m.   | Marriott        | Franklin 12 |
| Smith, Michael        | General Science    | 7   | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 113 B       |
| Smith, Patti          | General Science    | 398 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 111 B       |
| Snow, Richard         | Technology         | 227 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 115 C       |
| Solomon, Deobra       | General Math       | 366 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 118 B       |
| Soule, Kelly          | Statistics         | 355 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 112 B       |
| Speelman, Julie       | Algebra I          | 107 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 120 B       |
| Steinke, Tom          | Technology         | 45  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 110 AB      |
| Stern, Howard         | Algebra I          | 416 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 120 B       |
| Stiggers, Bill        | Algebra I          | 440 | Saturday | 2:15 p.m. - 3:45 p.m.   | Marriott        | Salon J     |
| St. John, Denny       | Assessment         | 90  | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 112 A       |
| Suarez, Lisa          | General Interest   | 27  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 122 B       |
| Sword, David          | General Math       | 60  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 118 C       |
| Tarnowiecky, Kimberly | Algebra I          | 372 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 120 C       |
| Thomas, Kimberley     | General Interest   | 246 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 126 A       |
| Thompson, Jeffery     | Technology         | 141 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 115 C       |
| Toelken, Jennifer     | Middle Grades Math | 42  | Friday   | 10:15 a.m. - 11:15 a.m. | Marriott        | Franklin 12 |
| True, Chris           | Statistics         | 33  | Friday   | 10:15 a.m. - 11:15 a.m. | Marriott        | Franklin 1  |
| Tucker, Suzanne       | General Science    | 175 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 111 B       |
| Underdonk, Joshua     | General Math       | 102 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 118 B       |
| Underwood, Becky      | Programming        | 142 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 116         |
| Usinski, Dave         | Algebra I          | 282 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 120 C       |
| Vallette, Stephen     | CAS                | 345 | Saturday | 11:00 a.m. - 12:00 p.m. | Marriott        | Franklin 9  |
| Van Arnhem, Jeff      | Assessment         | 4   | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 112 A       |
| Van Dyken, Kymn       | Technology         | 79  | Friday   | 11:30 a.m. - 12:30 p.m. | Marriott        | Franklin 6  |
| Villafranca, Darlene  | Technology         | 183 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 115 B       |

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| Name                      | Subject               | No. | Day      | Time                    | Location        | Room        |
|---------------------------|-----------------------|-----|----------|-------------------------|-----------------|-------------|
| Wadden, Allister          | Algebra I             | 61  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 119 A       |
| Ward, Barbara             | Technology            | 88  | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 110 AB      |
| Washburn, Scott           | Technology            | 361 | Saturday | 1:00 p.m. - 2:00 p.m.   | Convention Ctr. | 115 B       |
| Watson, Tracy             | Authoring             | 233 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 119 A       |
| Weil, Aurelia             | Precalculus           | 415 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 120 A       |
| Welch, Peggy              | General Science       | 44  | Friday   | 11:30 a.m. - 12:30 p.m. | Convention Ctr. | 109 B       |
| Welch, Peggy              | Middle Grades Science | 313 | Saturday | 11:00 a.m. - 12:00 p.m. | Convention Ctr. | 113 C       |
| West, Stephen             | Geometry              | 111 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 121 C       |
| Wheeler, Judy             | Middle Grades Math    | 304 | Saturday | 9:45 a.m. - 10:45 a.m.  | Marriott        | Franklin 13 |
| Wijetunge, Tharanga       | Technology            | 11  | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 115 B       |
| Williams, Greg            | General Science       | 132 | Friday   | 2:45 p.m. - 4:15 p.m.   | Convention Ctr. | 111 B       |
| Williams, Greg            | General Science       | 443 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 111 B       |
| Williams, Paul            | General Science       | 1   | Friday   | 10:15 a.m. - 11:15 a.m. | Convention Ctr. | 109 B       |
| Williams, Paul            | Physics               | 268 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 113 C       |
| Williams, Ray             | CAS                   | 344 | Saturday | 11:00 a.m. - 12:00 p.m. | Marriott        | Franklin 8  |
| Williams, Ray             | Middle Grades Math    | 483 | Saturday | 4:00 p.m. - 5:30 p.m.   | Marriott        | Franklin 12 |
| Wilson, Carrie            | Administrator         | 190 | Friday   | 4:30 p.m. - 5:30 p.m.   | Convention Ctr. | 119 A       |
| Wilson, Jennifer          | Assessment            | 219 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 112 A       |
| Wimberly, M. Ed., Vanessa | Middle Grades Math    | 85  | Friday   | 11:30 a.m. - 12:30 p.m. | Marriott        | Franklin 12 |
| Wingert, Tracy            | General Interest      | 287 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 122 B       |
| Worcester, Don            | Assessment            | 220 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 112 B       |
| Young, David              | General Interest      | 106 | Friday   | 1:30 p.m. - 2:30 p.m.   | Convention Ctr. | 120 A       |
| Young, David              | Middle Grades Science | 223 | Saturday | 8:00 a.m. - 9:30 a.m.   | Convention Ctr. | 113 C       |
| Zbiek, Rose               | CAS                   | 390 | Saturday | 1:00 p.m. - 2:00 p.m.   | Marriott        | Franklin 9  |
| Zelkowski, Jeremy         | General Math          | 278 | Saturday | 9:45 a.m. - 10:45 a.m.  | Convention Ctr. | 119 A       |
| Zelkowski, Jeremy         | General Math          | 457 | Saturday | 4:00 p.m. - 5:30 p.m.   | Convention Ctr. | 118 C       |
| Zeydel, Kim               | General Math          | 410 | Saturday | 2:15 p.m. - 3:45 p.m.   | Convention Ctr. | 118 A       |

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Z



# Exhibitors



# Exhibitors

## EXHIBITOR HALLWAY HOURS

**Friday, March 8, 10 a.m. – 6 p.m.**

**Saturday, March 9, 8 a.m. – 5:30 p.m.**

## LOCATION

**Convention Center – Arch Street Foyer**

**Convention Center – Arch Street Foyer**

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