



Come Learn Go Teach

#T3IC

2016 T³™ International Conference

[T³™ Professional Development]

Instructional practices | Technology integration | Content knowledge

February 26-28, 2016, Orlando, Florida



Inspiring Generation STEM

We share your commitment to the success of your students. After all, the next generation of Texas Instruments engineers and technicians are in today's math and science classrooms. So we deliver the interactive technology,

engaging activities and world-class professional development that teachers need to help their students succeed — now, in post-secondary STEM programs tomorrow and as the inventors and innovators of the future.

There's a scientIst in every student. Learn more at education.ti.com/us/science.





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2016 T³™ International Conference

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Welcome



Dear educators, administrators and friends,

On behalf of the Teachers Teaching with Technology™ (T³™) community and Texas Instruments, welcome to the **2016 T³™ International Conference** in beautiful Orlando, Florida. This is always one of my favorite weekends of the year, when some of the best minds in mathematics and science education gather to grow, share and shape the future of science, technology, engineering and math (STEM) education.

Created and presented by teachers for teachers, the T³™ International Conference provides a unique opportunity to engage with educators and thought leaders from around the world who share a collective passion for excellence in STEM education, as well as a commitment to instilling this same passion into young minds. By investing your time in this conference, you are demonstrating your commitment to your students: our future.

Whether you are a first-time participant or a conference veteran, get ready for a weekend full of interactive, hands-on, minds-on professional development that will leave you energized and inspired. You will leave here with new ideas and proven solutions to:

- » **Sharpen instruction** by learning from some of the top educators in the world who are shaping the future of math and science education
- » **Improve student understanding** by effectively incorporating TI educational technology into classroom instruction
- » **Enhance curriculum** with new content for STEM and standards-based learning
- » **Empower and inspire students** to pursue STEM-related careers

The 2016 T³™ International Conference is your conference, so customize your experience by attending a variety of the more than 300 available sessions. And while you are here, I encourage you to share your thoughts, ideas and experiences online using #T3IC to engage with fellow attendees and your colleagues around the world. Also, follow us on Twitter (@TICalculators) to stay connected during the conference and beyond.

Thank you for attending and for bringing your expertise to our conference. As educators and administrators, you have the vision, knowledge and experience to help us pave our way into the future. It is my hope that you return to your schools revitalized and reenergized to inspire the next generation of mathematicians, scientists and engineers.

Enjoy the conference and enjoy Orlando!

Best regards,

Peter Balyta, Ph.D. (@pbalyta)
President
TI Education Technology

Conference Overview



Download the T³™ 2016 App

education.ti.com/go/t3app

- Session schedules
- Conference planner
- Announcements
- Maps
- and more

- Available in:
- Apple App Store
 - Google Play
 - Windows Phone Store
 - BlackBerry World



Stay connected

with @TICalculators and fellow participants using the hashtag #T3IC.



Friday, February 26

- Conference registration 7 a.m. - 4 p.m.
- Opening session 8:30 - 10 a.m.
- Conference sessions 10:15 a.m. - 5:15 p.m.
- Exhibits 10:15 a.m. - 5:30 p.m.
- Lunch and exclusive exhibits 11:45 a.m. - 12:45 p.m.
- Welcome reception 5:30 - 7:30 p.m.

Saturday, February 27

- Conference registration 7:30 a.m. - noon
- Conference sessions 8 a.m. - 5:30 p.m.
- Exhibits 8 a.m. - 5:30 p.m.
- Lunch and exclusive exhibits noon - 1 p.m.
- T³™ International Conference Night at Epcot® 6 - 9 p.m.

Sunday, February 28

- #T3IC 5k fun run 6 - 7:30 a.m.
- Power sessions 8:30 - 10 a.m.
- Closing session 10:15 - 11:15 a.m.

Tips

Grand Prize Drawing

Attend the closing session for your chance to win an expenses-paid trip to a 2016 T³™ Workshop. See page 7 for details.

Friday, February 26



Opening Session

8:30 - 10 a.m.

Grand Ballroom Salon 7/8

» **Welcome**

Peter Balyta

President, Education Technology, Texas Instruments

» **Keynote presentation**

Dylan Wiliam

*Emeritus Professor of Educational Assessment,
Institute of Education, University of London*

General Sessions

10:15 a.m. - 5:15 p.m.

Orlando World Center Marriott Conference Center

See the Session Details section for times, locations and descriptions.

Special Sessions

Grant Writing for STEM Initiatives

North Tower: Harbor Beach

Speakers: Louise Chapman, Doris Teague, Clara Tolbert

This session provides participants a hands-on approach to developing a STEM-related grant framework. Designed for beginning or intermediate grant writers, participants will develop various sections of a grant proposal selected from our lists or use a proposal of their own. Working with the presenters and in small groups, this session will provide a good starting point for a proposal. Additional writing time at home can then be used to fine-tune goals, outcomes and program options; develop partnerships and program evaluations; and create sustainable initiatives at the classroom and district level.

Participants should bring their laptop or internet ready device.



Keynote Speaker

Dylan Wiliam, Ph.D.

*Emeritus Professor of Educational Assessment
Institute of Education, University of London*

In a varied career, Dylan Wiliam has taught in urban public schools, directed a large-scale testing program, served a number of roles in university administration, including Dean of a School of Education, and pursued a research program focused on supporting teachers to develop their use of assessment in support of learning.

He was the co-author, with Paul Black, of a major review of the research evidence on formative assessment published in 1998 and has subsequently worked with many groups of teachers, in both the UK and the USA, on developing formative assessment practices.

Tips

Conference Keepsakes

Get yours at the Welcome Reception photo booth.

T³™ International Conference Welcome Reception

5:30 - 7:30 p.m.

Falls Pool and Fairway Terrace

The always-popular T³™ International Conference meet-and-greet features light hors d'oeuvres, beverages and lively socializing to the breezy sounds of Volcano Joe and the Hot Lava Band.

Note: If weather dictates, the reception will be moved to the Sago & Sabal Ballrooms.

General information



Here is a list of helpful information during your T³™ conference experience.

Certificate of attendance

At onsite registration, all participants receive a certificate of attendance, which may be submitted to your school or district for professional development credits. Please note that professional development credit is determined by the participant's school or district.

CEUs

Participants may acquire 1.5 Continuing Education Units (CEUs) through Adams State University. An additional fee applies. Visit education.ti.com/go/t3orlando for additional information.

Graduate Credit

Participants may receive one semester hour of graduate credit through Central Michigan University. An additional fee applies. Visit education.ti.com/go/t3orlando for additional information.

Dining Options

Breakfast

- » Conference breakfast buffet: \$20 + tax
 - Solaris and High Velocity
 - Friday: 6:30 - 9:30 a.m.
 - Saturday: 6:30 - 9 a.m.
 - Sunday: 7 - 9:30 a.m.
- » Food Court
- » Starbucks (6 a.m. - 11 p.m. daily)

Lunch

- » Falls Pool Bar & Grill
- » Food Court
- » Solaris (American cuisine)
- » Starbucks

Dinner

- » Falls Pool Bar & Grill
- » Hawk's Landing Steakhouse & Grille
- » High Velocity (Sports bar)
- » Mikado Japanese Steakhouse
- » Siro Urban Italian Kitchen
- » Starbucks

Epcot®

Still need your ticket to Epcot® for Saturday evening? Visit the hotel concierge to purchase your ticket.

Complimentary transportation will be departing from the conference center driveway every 20 minutes beginning at 6 p.m.

Pick up the return shuttle from Epcot® until 10 p.m. Shuttles will depart from the same location as drop-off, to the left of the Epcot® exit. TI signage will be provided.

Exhibits

Visit our exhibitors in the Grand/Crystal foyers to learn about their products and services.

Stop by the TI Booth to see our latest products and offerings, update your OS, or to meet your friendly TI-Cares™ representatives.

Family participation

Family members may participate in the T³™ International Conference Night at Epcot®, as well as the #T3IC 5K Fun Run. Conference sessions and the Welcome Reception are for conference registrants only.

Feedback

Your feedback is valuable to us as we plan future T³™ International Conferences. Please take a few minutes to complete the evaluation you receive via email following the conference.

First aid

For first aid, contact hotel security by dialing x85246 on any hotel phone.

Lost and found

Lost and found is located at the Info Hub, next to registration. You may also check with the hotel concierge.

Grand Prize Drawing*

Attend the closing session for a chance to win attendance for two (2) participants at any 2016 T³™ Workshop, including travel, lodging and meals. Retail value: \$2,650

Presentations and handouts

To access copies of presentations and handouts, please visit the conference app. Select a specific session and then download any materials provided by the presenter.

Schedule updates

Schedule updates will be posted in the conference app and on signage throughout the meeting space.

Sightseeing

Visit 2016t3conference.orlandomeetinginfo.com for information on sightseeing and special discounts for conference participants during your stay in Orlando.

Wi-Fi

Free Wi-Fi is available in the Orlando World Center Marriott lobby and restaurants. Wi-Fi is not available in the conference center or session rooms.

Additional questions?

Visit us at the Info Hub located next to conference registration.

*Terms and conditions apply. Full T³™ Conference Grand Prize rules and prize descriptions are available at the TI booth. TI employees and T³™ instructors are not eligible to win.

Saturday, February 27

General Sessions

8 a.m. - 5:30 p.m.

Orlando World Center Marriott Conference Center

See the Session Details section for times, locations and descriptions.

Special Sessions

Statistics Symposium:

Ten really cool things to teach in statistics

North Tower: Harbor Beach

Moderator: Gail Burrill

Simulation can be a key strategy for developing understanding of core statistical concepts, particularly those related to introductory inference and making reasoned judgments. The sessions will introduce activities that lead to simulation based inference in ways that are "laddered" to develop a learning progression of the key concepts across grades 6-12 and make explicit why these ideas are fundamental for everyone to learn.

Introduction

8 - 8:05 a.m.

Simulation-based inference for a single proportion

8:05 - 9:30 a.m.

Josh Tabor

Analyzing 2x2 tables: Saving penguins and babies

9:45 - 10:45 a.m.

Allan J. Rossman

Estimating and interpreting a margin of error from a sample survey

11 a.m. - noon

Daren S. Starnes

Tips

Get answers

to your TI Technology questions from the TI-Cares™ customer support team at the TI Booth.



Probability and simulation

1 - 1:30 p.m.

Robin Levine-Wissing

Sampling and random segments

1:30 - 2 p.m.

Gail Burrill

Choosing a winner: A look at statistical comparisons

2:15 - 3:45 p.m.

Landy Godbold

Numbers in the news: race and the law

4 - 5:15 p.m.

Deborah Hughes Hallett

Wrap up with questions and answers

5:15 - 5:30 p.m.

Super Lua Users Group (SLUG fest)

2:15 - 3:45 p.m.

Crystal Ballroom Salon L

Speakers: Stephen Arnold, Adrien Bertrand

This session is offered for intermediate to advanced Lua users (super Lua users). If you have been honing your Lua skills and would like to be part of the ongoing development of this exciting part of the TI-Nspire™ software solution, then come to this forum and contribute suggestions and ideas. Bring your own laptop and take the next steps in enhancing your Lua expertise.



Seven for Seven

4 - 5:30 p.m.

Canary 1

Facilitator: Kevin Spry

Join us for a fast-paced, information-packed session as we bring together seven exciting and motivated speakers to each present for seven minutes on a key educational topic. Each speaker will share why their topic excites and motivates them and how it can inspire you.

Topics are:

Addressing the gender gap in the SAT*

Jeff McCalla

Engineering design to enhance student creativity and learning!

Cassie Whitecotton

The SlowMath movement

Jennifer Wilson

Balancing equations in STEM – finding solutions

Matt Owens



Follow @TICalculators and #T3IC
on Twitter for chances to win fun prizes.

Show what you know in more than one way

Jill Gough

Choosing to lead – giving a voice to students!

Doug Roberts

Moving forward with implementing Principles to Action

Katie England



Sunday, February 28



Power sessions

See page 128 for complete details on power sessions.

AP* Calculus from those in the know

8:30 - 10 a.m.

Grand Ballroom 1/2/3

Moderator: Tom Dick, Ph.D.

Speakers: Vicki Carter; Stephen Davis, Ph.D.; Deborah Hughes Hallett; Ben Hedrick, Ph.D.; Steve Kokoska, Ph.D.; Craig Wright

Leading learning in deeply digital mathematics classrooms: tools to inform powerful decision making

8:30 - 10 a.m.

Grand Ballroom 4/5/6

Speakers: Valerie Mills, John W. Staley, Ph.D.

STEM Education: The mISSion imaginaTion Design Challenge

8:30 - 10 a.m.

Grand Ballroom 9/10/11

Moderator: Curtis Brown, *TI Education Technology*

Panelists: Erick Archer, *TI Education Technology*; Ricky Arnold, *NASA Astronaut*; Peter Balyta, Ph.D., *President, TI Education Technology*; Donald James, *NASA Associate Administrator for Education*; Becky Kamas, *NASA Education Specialist*

Visualizing ratios and proportional relationships: implications for our classroom

8:30 - 10 a.m.

Grand Ballroom 12/13/14

Speakers: Gail Burrill, Michelle Rinehart

Closing Session

10:15 - 11:15 a.m.

Grand Ballroom Salon 7/8

Speaker: Donald James



Closing Speaker

Donald James

*Associate Administrator for Education
National Aeronautics and Space Administration*

Donald James is responsible for developing and implementing NASA's education programs that strengthen student involvement and public awareness about its scientific goals and missions. He leads the agency in inspiring interest in science, technology, engineering and mathematics (STEM) through NASA's unique mission, workforce, facilities, research and innovations. James chairs NASA's Education Coordinating Council, and is the United States representative on the International Space Education Board. Since beginning his NASA career in 1982, James has served in numerous capacities including public affairs, human capital management and strategic communications.

Additional information



Getting started sessions

Getting started with the TI-84 Plus CE graphing calculator

Friday, February 26

10:15 - 11:45 a.m.

Canary 3

Jane Barnard

See page 62 for details.

Getting started with the TI-Nspire™ CX handheld

Friday, February 26

10:15 - 11:45 a.m.

Canary 4

Betty Gasque

See page 62 for details.

I've turned it on, now what?

Getting started with the TI-Nspire™ CX handheld

Friday, February 26

12:45 - 2:15 p.m.

New York

Sherry Everding

See page 64 for details.

Getting started with the TI-Nspire™ app for iPad® and more

Friday, February 26

12:45 - 2:15 p.m.

Grand Ballroom Salon 5

Jerry Scherer

See page 66 for details.

Overview of the TI-30Xa scientific calculator

Friday, February 26

2:30 - 3:30 p.m.

Canary 4

Saturday, February 27

9:45 - 10:45 a.m.

Canary 3

Saturday, February 27

1 - 2 p.m.

Canary 3

Beth Smith

See pages 77, 99 and 113 for details.

Save time for fun

Socialize and expand your professional network

T³™ International Conference Welcome Reception

Friday, 5:30 - 7:30 p.m.

Falls Pool and Fairway Terrace

The always-popular T³™ International Conference meet-and-greet features light hors d'oeuvres, beverages and lively socializing and the breezy sounds of Volcano Joe and the Hot Lava Band.

T³™ International Conference Night at Epcot®

Saturday, 6 p.m.

Fireworks start at 9 p.m.

After sessions conclude on Saturday, join your friends and colleagues and discover the Magic of Epcot®. Explore the cultures and dining of 11 great nations at the Epcot® World Showcase. Then, gather around the Lagoon at 9 p.m. for the IllumiNations: Reflections of Earth fireworks spectacular. Friends and family are welcome to join you for this evening.

Complimentary transportation will be departing from the conference center driveway every 20 minutes beginning at 6 p.m.

#T3IC 5K Fun Run

Sunday, 6 a.m. check in; 6:30 a.m. starting time

Fairway Terrace

Join your friends and colleagues for the #T3IC 5K Fun Run — the perfect way to start a “perfect number” day! The 5K takes place at the Hawk's Landing Golf Club and offers a scenic blend of native Florida wildlife and tropical vegetation. The beautiful natural surroundings provide the perfect escape for a morning run or walk. You must complete a waiver at the sign-in table prior to the run.

STEM Room

Get a sneak peek at future TI technology

Crystal Ballroom Salon P

Drop by the TI STEM room during the conference and beta test a brand new TI product for the STEM classroom.

Be one of the first to touch the future of STEM technology and provide valuable feedback to developers.

The room schedule will be posted outside of Crystal Ballroom Salon P on Friday and Saturday of the conference.



**The T³™ Leadership Awards
will be announced at the
2016 T³™ International Conference.**

Conference Schedule



Friday, February 26

	Time	Location
Registration	7 a.m. - 4 p.m.	Grand Registration
Opening session	8:30 - 10 a.m.	Grand Ballroom Salon 7/8
Conference sessions	10:15 a.m. - 5:15 p.m.	Orlando World Center Marriott Conference Center
Exhibits	10:15 a.m. - 5:30 p.m.	Crystal/Grand Foyers
Welcome reception	5:30 - 7:30 p.m.	Falls Pool & Fairway Terrace

Saturday, February 27

	Time	Location
Registration	7:30 a.m. - noon	Grand Registration
Conference sessions	8 a.m. - 5:30 p.m.	Orlando World Center Marriott Conference Center
Exhibits	8 a.m. - 5:30 p.m.	Crystal/Grand Foyers
T³™ International Conference Night at Epcot®	6 - 9 p.m.	Depart from Conference Center entrance

Sunday, February 28

	Time	Location
#T3IC 5k Fun Run	6 - 7:30 a.m.	Fairway Terrace
Power sessions	8:30 - 10 a.m.	Grand Ballroom Salon rooms
Closing session	10:15 - 11:15 a.m.	Grand Ballroom Salon 7/8

My Conference Planner



TIME	FRIDAY
7 a.m. - 4 p.m.	Conference registration Grand Registration Desk
8:30 - 10:15 a.m.	Opening session Grand Ballroom Salon 7/8
10:15 - 11:45 a.m.	
11:45 a.m. - 12:45 p.m.	Lunch
12:45 - 2:15 p.m.	
2:30 - 3:30 p.m.	
3:45 - 5:15 p.m.	
5:30 - 7:30 p.m.	Welcome reception Falls Pool & Fairway Terrace

TIME	SATURDAY
7:30 a.m. - noon	Conference registration Grand Registration Desk
8 - 9:30 a.m.	
9:45 - 10:45 a.m.	
11 a.m. - noon	
Noon - 1 p.m.	Lunch
1 - 2 p.m.	
2:15 - 3:45 p.m.	
4 - 5:30 p.m.	
TIME	SUNDAY
8:30 - 10 a.m.	Power sessions
10:15 - 11:15 a.m.	Closing session Grand Ballroom Salon 7/8

Customer Focus Team



- Test drive our educational technology *before it's released*
- Interact directly with our Product Team
- Help improve students' learning experience



Complete your enrollment survey now
Scan this code or ask at the TI booth
education.ti.com/go/cft

Save the Date

Chicago



Image courtesy of iStock.

Continue the
conversation
#T3IC

Join us in Chicago as T³™ kicks off another year of connecting teachers and technology.

2017 T³™ International Conference

When: March 10-12, 2017

Where: Chicago, Illinois, Hyatt Regency Chicago

Visit: education.ti.com/go/t3chicago



Teachers Teaching with Technology™
Professional Development from Texas Instruments



Sessions by Subject

Come
Learn
Teach
Go
Teach

#T3IC

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
Administrator					
29	Choosing the right device or application: conversations in the professional learning community	Friday	10:15 - 11:45 a.m.	Susan Horowitz	Crystal Ballroom Salon K
64	Nspiration in math and science instruction	Friday	12:45 - 2:15 p.m.	Missy Huffty	Crystal Ballroom Salon K
68	Leadership for teacher learning	Friday	12:45 - 2:15 p.m.	Dylan Wiliam	Canary 1/2
99	Technology as a tool of investigation in the classroom: an administrator's <i>look-fors</i>	Friday	2:30 - 3:30 p.m.	Tammy L. Jones	Crystal Ballroom Salon K
100	Designing engaging and collaborative lessons for student success	Friday	2:30 - 3:30 p.m.	Page Dettman	Crystal Ballroom Salon L
138	Q&A with Dylan Wiliam	Friday	3:45 - 5:15 p.m.	Dylan Wiliam	Canary 1/2
169	Advancing science, technology, engineering and math (STEM) through systemic districtwide efforts	Saturday	8 - 9:30 a.m.	Kristin Brown	Crystal Ballroom Salon K
192	The legacy of leadership: a generation of leaders	Saturday	9:45 - 10:45 a.m.	Stephanie Ogden	Grand Ballroom Salon 6
205	Putting 21st-century technology in students' hands: the Clover Park School District story	Saturday	9:45 - 10:45 a.m.	Maria Flores	Crystal Ballroom Salon K
241	Transforming the teaching and learning of mathematics in the digital age	Saturday	11 a.m. - noon	John Staley	Crystal Ballroom Salon K
277	My team is excited ... now what?	Saturday	1 - 2 p.m.	Scott Gaddis	Crystal Ballroom Salon K
313	Full implementation of the TI-Nspire™ CX Navigator™ system in over 150 secondary math classrooms in one district	Saturday	2:15 - 3:45 p.m.	Ronda Davis	Crystal Ballroom Salon K
Algebra I					
2	What the APP is that?	Friday	10:15 - 11:45 a.m.	Gina Allred	Tampa
3	To feel the algebra, you've got to move it!	Friday	10:15 - 11:45 a.m.	Lisa Suarez	St. Louis
6	Implementing project-based learning with the TI-Nspire™ technology	Friday	10:15 - 11:45 a.m.	Sherri Abel	New York
34	Getting started with the TI-84 Plus CE graphing calculator	Friday	10:15 - 11:45 a.m.	Jane Barnard	Canary 3
36	Who, me? I am going to teach statistics?	Friday	12:45 - 2:15 p.m.	Robin Levine-Wissing	Washington
37	Asking questions that count and listening to the answers	Friday	12:45 - 2:15 p.m.	Gail Burrill	Tampa
38	Step it up and break it down: dynamic differentiation to support student-centered learning	Friday	12:45 - 2:15 p.m.	Kristy Curran	St. Louis
41	I've turned it on, now what? Getting started with the TI-Nspire™ CX handheld	Friday	12:45 - 2:15 p.m.	Sherry Everding	New York
54	Engaging students with the TI-84 Plus and TI-84 Plus C Silver Edition graphing calculators and revised apps	Friday	12:45 - 2:15 p.m.	Linda Apicella	Grand Ballroom Salon 11
63	Introductory TI-84 Plus CE graphing calculator menu programming	Friday	12:45 - 2:15 p.m.	Mark von Rosenberg	Crystal Ballroom Salon F
71	Using great tasks and the TI-Nspire™ CX technology to teach statistics topics in algebra	Friday	2:30 - 3:30 p.m.	Kyle Atkin	Washington
72	Math – It's a small world after all!	Friday	2:30 - 3:30 p.m.	Judy Hicks	Tampa
73	How the TI-Nspire™ CX technology changed the way I teach	Friday	2:30 - 3:30 p.m.	Sandra Hocutt	St. Louis

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
Algebra I					
105	Overview of the TI-30Xa scientific calculator	Friday	2:30 - 3:30 p.m.	Beth Smith	Canary 4
106	Implementing Common Core Math Practices while on your TI-84 Plus graphing calculator family staycation!	Friday	3:45 - 5:15 p.m.	Edward Chaves	Washington
107	Applications to enhance learning	Friday	3:45 - 5:15 p.m.	JoAnn Miltenberg	Tampa
111	MAFS or CCSS: Use the TI-Nspire™ CX technology to develop mathematical practices in your students	Friday	3:45 - 5:15 p.m.	Marian Prince	New York
121	iPads® and flipped mathematics	Friday	3:45 - 5:15 p.m.	Sandra Speller	Grand Ballroom Salon 6
141	Provoking algebraic thinking with the TI-Nspire™ CX technology	Saturday	8 - 9:30 a.m.	Angela Melnyk	Washington
142	Investigating statistics in algebra I using the TI-Nspire™ CX technology	Saturday	8 - 9:30 a.m.	Katie Martinez	Tampa
143	Meeting the math standards with the help of a graphing calculator	Saturday	8 - 9:30 a.m.	Fred Decovsky	St. Louis
157	Creating your TI-84 Plus CE graphing calculator classroom using the TI-SmartView™ CE Emulator Software and TI-Connect™ CE software for the TI-84 Plus graphing family	Saturday	8 - 9:30 a.m.	Margo Lynn Mankus	Grand Ballroom Salon 9
175	The TI-84 Plus family of graphing calculators – strategies and activities for your mathematics classroom	Saturday	8 - 9:30 a.m.	Ruth Casey	Canary 3
176	Notice and note using the TI-Nspire™ CX technology: doodle to show what you know	Saturday	8 - 9:30 a.m.	Jill Gough	Canary 4
177	Building a foundation for AP* Statistics in your algebra courses	Saturday	9:45 - 10:45 a.m.	Thomas Mariano	Washington
178	The TI-84 Plus family of graphing calculators supports CCSS for Mathematical Content and Mathematical Practice	Saturday	9:45 - 10:45 a.m.	Rebecca Caison	Tampa
193	The power of the PublishView™ feature	Saturday	9:45 - 10:45 a.m.	Judith Olson	Grand Ballroom Salon 9
211	Overview of the TI-30Xa scientific calculator	Saturday	9:45 - 10:45 a.m.	Beth Smith	Canary 3
213	Flipping the TI-84 Plus graphing calculator classroom: what did we learn?	Saturday	11 a.m. - noon	Andrea Mika	Washington
214	Starfish family transformed with the new TI-84 Plus CE graphing calculator	Saturday	11 a.m. - noon	Barbara Ward	Tampa
215	Stroop test data collection will have you seeing colors	Saturday	11 a.m. - noon	Andrew Benzing	St. Louis
218	Implementing CCSSM statistics standards into algebra	Saturday	11 a.m. - noon	Todd Sikora	New York
229	Modeling activities using TI-Nspire™ CX technology for exploring representations and behaviors of linear functions	Saturday	11 a.m. - noon	Melfried Olson	Grand Ballroom Salon 9
249	Ease into exponential functions with the TI-Nspire™ CX technology or the TI-84 Plus graphing calculator	Saturday	1 - 2 p.m.	Kathy Traylor	Washington
250	Exploring transformations with the TI-84 Plus CE graphing calculator	Saturday	1 - 2 p.m.	Richard Parr	Tampa
251	Transformations in the coordinate plane with the TI-84 Plus family of graphing calculators	Saturday	1 - 2 p.m.	Margaret Bambrick	St. Louis
254	It's all downhill from here – explorations with negative slope	Saturday	1 - 2 p.m.	Don Slater	New York
265	Algebra concepts through modeling: making a curriculum dynamic for students and teachers through the TI-Nspire™ PublishView™ feature	Saturday	1 - 2 p.m.	Fay Zenigami	Grand Ballroom Salon 9
283	Overview of the TI-30Xa scientific calculator	Saturday	1 - 2 p.m.	Beth Smith	Canary 3

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
Algebra I					
285	Inside the algebra of the completely redesigned SAT*	Saturday	2:15 - 3:45 p.m.	Jeff McCalla	Washington
286	For the love of Fido and more – modeling math on the TI-84 Plus graphing calculator	Saturday	2:15 - 3:45 p.m.	David Reeves	Tampa
287	Using the TI-84 Plus Silver Edition graphing calculator for state assessments	Saturday	2:15 - 3:45 p.m.	Kathy Hale	St. Louis
290	The TI-84 Plus graphing calculator: a concept development tool in the secondary classroom	Saturday	2:15 - 3:45 p.m.	Andi Parr	New York
321	Modeling: implement the Common Core Math Practices and make real-world connections	Saturday	4 - 5:30 p.m.	Nancy Johnson	Tampa
322	Use your TI-84 Plus graphing calculator to answer which comes first – rate of change or slope?	Saturday	4 - 5:30 p.m.	Mike Lutz	St. Louis
Algebra II					
4	Simulations for algebra through precalculus using the TI-84 Plus Silver Edition graphing calculator	Friday	10:15 - 11:45 a.m.	Alice Hess	San Francisco
5	Discover the magic: Common Core statistics for algebra II	Friday	10:15 - 11:45 a.m.	Sharon Cichocki	San Antonio
22	Scrutinizing functions with the TI-84 Plus CE graphing calculator	Friday	10:15 - 11:45 a.m.	Ann Schlemper	Grand Ballroom Salon 14
39	Residuals have a story to tell	Friday	12:45 - 2:15 p.m.	Kara Leaman	San Francisco
44	Using the TI-84 Plus graphing calculator's color technology to meet the Common Core Math Practices	Friday	12:45 - 2:15 p.m.	Karen Campe	Denver
74	An Nspired look at transformations in algebra	Friday	2:30 - 3:30 p.m.	Landy Godbold	San Francisco
75	Back to basics with the TI-84 Plus graphing calculator to enhance mathematics	Friday	2:30 - 3:30 p.m.	Joyce Lee	San Antonio
86	The power of data: how to take full advantage of data collection using the TI-Nspire™ App for iPad®	Friday	2:30 - 3:30 p.m.	Jon Lepasca	Grand Ballroom Salon 6
109	Fun and engaging activities using technology that address Common Core	Friday	3:45 - 5:15 p.m.	Randy Lobe	San Francisco
110	No bones about it	Friday	3:45 - 5:15 p.m.	Sherrina Clark	San Antonio
115	Algebra II Common Core – get Nspired to navigate your way through the standards!	Friday	3:45 - 5:15 p.m.	Robyn Poulsen	Chicago
122	No handhelds? No problem! Use TI-Nspire™ software as a whole-class demonstration tool	Friday	3:45 - 5:15 p.m.	Julie Riggins	Grand Ballroom Salon 9
144	Constructing algebra with the TI-Nspire™ CX handheld	Saturday	8 - 9:30 a.m.	Pamela Harris	San Francisco
145	Algebraic inverses and the TI-84 Plus CE graphing calculator	Saturday	8 - 9:30 a.m.	Kim Thomas	San Antonio
155	Getting APPY with TI-Nspire™ technology	Saturday	8 - 9:30 a.m.	Matthew Owens	Grand Ballroom Salon 5
180	The TI-Nspire™ CX technology and Pythagorean triples	Saturday	9:45 - 10:45 a.m.	Denny St. John	San Francisco
181	The power of visualization in CCSS algebra II	Saturday	9:45 - 10:45 a.m.	Howard Stern	San Antonio

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
Algebra II					
216	It's all about the base: exploring exponential and logarithmic functions with the TI-Nspire™ CX Navigator™ system	Saturday	11 a.m. - noon	Katelyn Long	San Francisco
217	Exploring STEM activities with the TI-Nspire™ CX handhelds and the Calculator-Based Ranger 2™ (CBR2) motion sensor	Saturday	11 a.m. - noon	Peggy McVay	San Antonio
252	Teaching the Florida standards in algebra II using the TI-Nspire™ CX CAS handheld	Saturday	1 - 2 p.m.	Brendan Kelly	San Francisco
253	Using the TI-84 Plus Silver Edition graphing calculator to teach transformations from algebra through calculus	Saturday	1 - 2 p.m.	Ronn Blaha	San Antonio
264	Selfie modeling	Saturday	1 - 2 p.m.	Travis Bower	Grand Ballroom Salon 6
288	Real valued functions of complex numbers	Saturday	2:15 - 3:45 p.m.	Pat Mara	San Francisco
289	Solving systems of equations using the TI-84 Plus CE graphing calculator	Saturday	2:15 - 3:45 p.m.	Debbie Sheridan	San Antonio
323	Graphing calculator art using the TI-Nspire™ CX handhelds	Saturday	4 - 5:30 p.m.	Sarada Toomey	San Francisco
336	Face-to-face + online classes = successful students	Saturday	4 - 5:30 p.m.	Antoinette Kidwell	Grand Ballroom Salon 9
Assessment					
57	Common Core composition – activities, assessment and the TI-Nspire™ technology	Friday	12:45 - 2:15 p.m.	Veronica Carlson	Grand Ballroom Salon 14
127	Meaningful two-way assessments using the TI-Nspire™ CX Navigator™ system	Friday	3:45 - 5:15 p.m.	Robin Gapinski	Grand Ballroom Salon 14
196	Using the TI-Nspire™ CX Navigator™ system to assess student understanding	Saturday	9:45 - 10:45 a.m.	Ron Albright	Grand Ballroom Salon 12
232	Assessment uses in a TI-Nspire™ CX Navigator™ system classroom	Saturday	11 a.m. - noon	Tara Whittington	Grand Ballroom Salon 12
268	Creating finance portfolios using the TI-84 Plus graphing calculator	Saturday	1 - 2 p.m.	Melinda Wilder	Grand Ballroom Salon 12
305	Nspiring open tasks	Saturday	2:15 - 3:45 p.m.	Paul Alves	Grand Ballroom Salon 13
340	Raise ACT* scores with TI-84 Plus Silver Edition graphing calculators	Saturday	4 - 5:30 p.m.	Michael Dorsey	Grand Ballroom Salon 13
341	Using learning styles to become better teachers	Saturday	4 - 5:30 p.m.	George Selitto	Grand Ballroom Salon 14
Authoring					
17	Introduction to Lua scripting on the TI-Nspire™ handheld	Friday	10:15 - 11:45 a.m.	Bryson Perry	Grand Ballroom Salon 9
18	Creating a Word document instruction sheet	Friday	10:15 - 11:45 a.m.	Ray Fox	Grand Ballroom Salon 10
53	Dancing with Lua: using Lua to enhance constructions made on a TI-Nspire™ graphs page	Friday	12:45 - 2:15 p.m.	Adam Pennell	Grand Ballroom Salon 10
168	Quick but effective interactive step-by-step TI-Nspire™ activities – how to use, make and get	Saturday	8 - 9:30 a.m.	Heidi Rudolph	Crystal Ballroom Salon F
301	Sliders, conditionals and math boxes, oh my!	Saturday	2:15 - 3:45 p.m.	Mark Arguijo	Grand Ballroom Salon 9
312	Programs – a powerful tool for authoring interactive documents with the TI-Nspire™ CX handheld	Saturday	2:15 - 3:45 p.m.	Marc Garneau	Crystal Ballroom Salon F
349	Bluetooth® Low Energy and Lua: create your own STEM scripts	Saturday	4 - 5:30 p.m.	Stephen Arnold	Crystal Ballroom Salon L

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
Biology					
96	Getting started with Vernier sensors in biology	Friday	2:30 - 3:30 p.m.	Leann Iacuone	Crystal Ballroom Salon D
201	Biology in the real world	Saturday	9:45 - 10:45 a.m.	Louise Chapman	Crystal Ballroom Salon C
273	Connecting STEM with environmental literacy using the TI-Nspire™ CX technology	Saturday	1 - 2 p.m.	Jessica Kohout	Crystal Ballroom Salon C
Calculus					
19	Conceptual development of calculus in an active learning classroom using the TI-Nspire™ CX CAS technology	Friday	10:15 - 11:45 a.m.	Douglas Lapp	Grand Ballroom Salon 11
117	Flipping AP* Calculus and geometry with the TI-Nspire™ CX CAS handheld and TI-Nspire™ CX Navigator™ system	Friday	3:45 - 5:15 p.m.	Joanne Ryan	Grand Ballroom Salon 2
147	Using TI-Nspire™ 3-D graphing to create solids of revolution	Saturday	8 - 9:30 a.m.	Steve Phelps	New Orleans
159	Using the TI-84 Plus CE graphing calculator in calculus	Saturday	8 - 9:30 a.m.	Don Worcester	Grand Ballroom Salon 11
190	TI-84 Plus CE graphing calculator in an applied calculus course	Saturday	9:45 - 10:45 a.m.	Donald Griffin	Grand Ballroom Salon 4
195	Series-ly? Exploring series using the TI-Nspire™ CX technology	Saturday	9:45 - 10:45 a.m.	Patricia Brooks	Grand Ballroom Salon 11
210	AP* Calculus, the new frameworks and technology	Saturday	9:45 - 10:45 a.m.	Vicki Carter	Canary 2
231	Calculus and algebra class activities with the TI-Nspire™ CX handheld	Saturday	11 a.m. - noon	Bozenna Graham	Grand Ballroom Salon 11
267	Discovering the hidden gems of calculus with help from the TI-Nspire™ CX CAS handheld	Saturday	1 - 2 p.m.	Kurt Kleinberg	Grand Ballroom Salon 11
303	Take it to the limit ... one more time: calculus activities for the TI-Nspire™ CX handhelds/TI-84 Plus graphing calculator family	Saturday	2:15 - 3:45 p.m.	Anthony Record	Grand Ballroom Salon 11
325	Initial conditions? The collaborative work to get close to mathematics concepts using the TI-Nspire™ CX Navigator™ system	Saturday	4 - 5:30 p.m.	Cesar Lozano Diaz	New York
337	Exploring volumes by cross-sections in calculus	Saturday	4 - 5:30 p.m.	Juan Manuel Gonzalez	Grand Ballroom Salon 10
338	Project-based lessons in AP* Calculus	Saturday	4 - 5:30 p.m.	Michael Long	Grand Ballroom Salon 11
C	AP* Calculus from those in the know	Sunday	8:30 - 10 a.m.	Tom Dick	Grand Ballroom 1/2/3
Chemistry					
25	Adventures in thermochemistry – using the TI-Nspire™ technology to see energy	Friday	10:15 - 11:45 a.m.	Ray Lesniewski	Crystal Ballroom Salon C
202	Identifying weak acids by pKa with TI-Nspire™ handheld technology	Saturday	9:45 - 10:45 a.m.	Roxane Ohl	Crystal Ballroom Salon D

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
Computer Algebra System (CAS)					
31	A CAS primer	Friday	10:15 - 11:45 a.m.	Fred Ferneyhough	Crystal Ballroom Salon M
32	Using the TI-Nspire™ CX CAS handhelds and the TI-Nspire™ CX Navigator™ system to transform a traditional algebra I course	Friday	10:15 - 11:45 a.m.	Debbie Dicker	Crystal Ballroom Salon N
66	Getting answers isn't enough – let students know if the answers are correct with the TI-Nspire™ CX CAS technology	Friday	12:45 - 2:15 p.m.	Patsy Fagan	Crystal Ballroom Salon M
67	Tips with literal equations – the CAS in algebra	Friday	12:45 - 2:15 p.m.	Sean Bird	Crystal Ballroom Salon N
69	A CAS at my school? How can I get such a program set up?	Friday	12:45 - 2:15 p.m.	Ray Klein	Canary 3
101	Using the TI-Nspire™ CX CAS handheld to save time in teaching Common Core algebra I	Friday	2:30 - 3:30 p.m.	Anthony Farrell	Crystal Ballroom Salon M
102	The cubic: the polynomial that keeps on giving	Friday	2:30 - 3:30 p.m.	Peter Flynn	Crystal Ballroom Salon N
137	Using the CAS in middle school math	Friday	3:45 - 5:15 p.m.	Michelle Bonds	Crystal Ballroom Salon N
139	CAS activities that integrate dynamic geometry and dynamic algebra using handhelds, the TI-Nspire™ App for iPad® or TI-Nspire™ software	Friday	3:45 - 5:15 p.m.	Tom Reardon	Canary 3
173	Problem pearls from Park City using the TI-Nspire™ CX CAS handheld	Saturday	8 - 9:30 a.m.	Thomas Dick	Canary 1
206	Tackling the new SAT* with the TI-Nspire™ CX CAS handheld	Saturday	9:45 - 10:45 a.m.	Michael Buescher	Crystal Ballroom Salon L
207	Dynamic dissections: building persuasive polygon area formulas via manipulation and CAS (Computer Algebra System)	Saturday	9:45 - 10:45 a.m.	Jon Davis	Crystal Ballroom Salon M
209	The remarkable computer algebra system: defined, applied and refined	Saturday	9:45 - 10:45 a.m.	Candace Terry	Canary 1
243	CAS/The computer algebra system: first steps	Saturday	11 a.m. - noon	Tom Fox	Crystal Ballroom Salon M
245	Exploring sequences and series with CAS (Computer Algebra System)	Saturday	11 a.m. - noon	Irina Lyublinskaya	Canary 1
281	Using TI-Nspire™ CAS technology to address Common Core Math Practices in algebra and precalculus	Saturday	1 - 2 p.m.	Wade Ellis	Canary 1
300	CAS to the rescue: Using the TI-Nspire™ CAS App for iPad® in RT12	Saturday	2:15 - 3:45 p.m.	Tina Alhashimi	Grand Ballroom Salon 6
315	Don't teach what students can discover	Saturday	2:15 - 3:45 p.m.	William Caroscio	Crystal Ballroom Salon M
350	Using the CAS in the sciences to promote the use of CAS in mathematics	Saturday	4 - 5:30 p.m.	David Young	Crystal Ballroom Salon M
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)					
1	Vertical teams: teaching rates in grade 9 through AP* STEM courses	Friday	10:15 - 11:45 a.m.	Serena Magrogan	Washington
23	TI-Nspire™ CX technology and the mathematical and scientific process	Friday	10:15 - 11:45 a.m.	Delbra Robinson	Crystal Ballroom Salon A
24	Statistics and environmental science – linking science and data analysis using real-world data	Friday	10:15 - 11:45 a.m.	Cindy Chesley	Crystal Ballroom Salon B
27	Breathe in, breathe out. Relax. Breathe in, breathe out.	Friday	10:15 - 11:45 a.m.	Stacy Thibodeaux	Crystal Ballroom Salon E
58	Measuring wind chill with the TI-Nspire™ CX CAS handheld	Friday	12:45 - 2:15 p.m.	Scott Keltner	Crystal Ballroom Salon A

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)					
59	Blasting off into STEM	Friday	12:45 - 2:15 p.m.	Todd Morstein	Crystal Ballroom Salon B
62	Roots (what we have to plant for STEM to take hold)	Friday	12:45 - 2:15 p.m.	Doug Roberts	Crystal Ballroom Salon E
94	Probes, data collection and stats!	Friday	2:30 - 3:30 p.m.	Sandra Tweedy	Crystal Ballroom Salon B
97	STEM Behind Health: curing Type 1 diabetes	Friday	2:30 - 3:30 p.m.	Jeff Lukens	Crystal Ballroom Salon E
128	Exploring motion with live data and CAS technology: putting the M in STEM	Friday	3:45 - 5:15 p.m.	Stephen Arnold	Crystal Ballroom Salon A
129	Engineering – the missing piece of the puzzle!	Friday	3:45 - 5:15 p.m.	Greg Dodd	Crystal Ballroom Salon B
130	That's the way the ball bounces	Friday	3:45 - 5:15 p.m.	Michelle Merriweather	Crystal Ballroom Salon C
163	Placeholder for E in STEM session	Saturday	8 - 9:30 a.m.	Fred Fotsch	Crystal Ballroom Salon A
164	Stepping up STEM with TI-Nspire™ CX technology	Saturday	8 - 9:30 a.m.	Audrey Cucci	Crystal Ballroom Salon B
165	Pictures + TI-Nspire™ CX handheld + Calculator-Based Ranger 2™ motion sensor + TI-84 Plus graphing calculator = real math!	Saturday	8 - 9:30 a.m.	John Bament	Crystal Ballroom Salon C
199	Math and science look at the thermometer	Saturday	9:45 - 10:45 a.m.	Randy Reese	Crystal Ballroom Salon A
235	Application of right-triangle trigonometry in forensics	Saturday	11 a.m. - noon	Christy Barton	Crystal Ballroom Salon A
236	Bats, moths and motion detectors: connecting math and echolocation	Saturday	11 a.m. - noon	Luke Stultz	Crystal Ballroom Salon B
238	STEM-based activities for the classroom using the TI-Nspire™ CX technology	Saturday	11 a.m. - noon	Cassie Whitecotton	Crystal Ballroom Salon D
246	Use zombies to make STEM become undead!	Saturday	11 a.m. - noon	Jeff Lukens	Canary 2
272	Fall, bounce, repeat? Creating collaborative lessons between science and math using the TI-Nspire™ CX Navigator™ system	Saturday	1 - 2 p.m.	David Willis	Crystal Ballroom Salon B
274	Using STEM projects and TI technology to motivate students and assess understanding	Saturday	1 - 2 p.m.	Lynda Vincent	Crystal Ballroom Salon D
302	Keep calm and STEM on!	Saturday	2:15 - 3:45 p.m.	Deborah Rice	Grand Ballroom Salon 10
307	Teaching for understanding, teaching for transfer	Saturday	2:15 - 3:45 p.m.	Tami Plein	Crystal Ballroom Salon A
309	Great STEM in math and science classrooms using the TI-Nspire™ CX technology	Saturday	2:15 - 3:45 p.m.	Amy Monahan	Crystal Ballroom Salon C
310	STEM with the TI-Nspire™ CX technology – enhancing both the math and science classroom	Saturday	2:15 - 3:45 p.m.	Michael Smith	Crystal Ballroom Salon D
311	Mathematical modeling and TI-Nspire™ technology	Saturday	2:15 - 3:45 p.m.	Caroline Lee	Crystal Ballroom Salon E
318	STEM made easy: bringing math and science together through technology	Saturday	2:15 - 3:45 p.m.	Karlheinz Haas	Canary 3

Sessions by Subject

No. Title Day Time Presenter Room

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

342	Using the TI-84 Plus graphing calculator to tackle real problems with space garbage	Saturday	4 - 5:30 p.m.	Debbie Poss	Crystal Ballroom Salon A
343	Reaching the breaking point: using spaghetti and the TI-Nspire™ CX handheld to understand inverse variation	Saturday	4 - 5:30 p.m.	Alice Fisher	Crystal Ballroom Salon B
E	STEM Education: The mISSion imaginaTion Design Challenge	Sunday	8:30 - 10 a.m.	Curtis Brown	Grand Ballroom 9/10/11

Elementary Math

16	Nspire'd fractions	Friday	10:15 - 11:45 a.m.	Marsha Burkholder	Grand Ballroom Salon 6
124	Fractions: it's Mickey Mouse – teaching and learning with the TI-15 Explorer™ elementary calculator and TI-30XS MultiView™ scientific calculator	Friday	3:45 - 5:15 p.m.	Chris Ruda	Grand Ballroom Salon 11
172	Young mathematicians, multiple representations and the TI-10 and TI-15 Explorer™ elementary calculators	Saturday	8 - 9:30 a.m.	Tammy L. Jones	Crystal Ballroom Salon N
208	Get rid of the number <i>blues</i> with the TI-15 Explorer™ elementary calculator	Saturday	9:45 - 10:45 a.m.	Marsha Burkholder	Crystal Ballroom Salon N
244	Counting on real numbers with the TI-15 Explorer™ elementary calculator to have a few surprises	Saturday	11 a.m. - noon	Lindsay Gold	Crystal Ballroom Salon N
316	Calculating reminders with children's literature, the TI-15 Explorer™ elementary calculator and manipulatives	Saturday	2:15 - 3:45 p.m.	Tammy L. Jones	Crystal Ballroom Salon N

Formative Assessment

33	Questioning and other ways of eliciting evidence	Friday	10:15 - 11:45 a.m.	Dylan Wiliam	Canary 1/2
49	Using the TI-Nspire™ CX Navigator™ system for face-to-face time in a flipped class	Friday	12:45 - 2:15 p.m.	Sharon Bruce	Grand Ballroom Salon 4
119	Using the TI-Nspire™ Teacher Software and TI-Nspire™ CX Navigator™ Software for discovery, immediate assessment and remediation	Friday	3:45 - 5:15 p.m.	Mary Brese	Grand Ballroom Salon 4
148	Best student success strategy = formative assessment: with and without the TI-Nspire™ CX Navigator™ system	Saturday	8 - 9:30 a.m.	Katie England	Los Angeles
161	Question-formulating technique with the TI-Nspire™ CX technology	Saturday	8 - 9:30 a.m.	RuthieAnn Trujillo	Grand Ballroom Salon 13
194	Easy first steps to using the TI-Nspire™ CX Navigator™ system	Saturday	9:45 - 10:45 a.m.	Della Highman	Grand Ballroom Salon 10
197	Made you look! Analyzing student work with formative assessment	Saturday	9:45 - 10:45 a.m.	Monique Chatman	Grand Ballroom Salon 13
233	Moving toward a paperless classroom with the TI-Nspire™ CX Navigator™ system	Saturday	11 a.m. - noon	Dan Kennedy	Grand Ballroom Salon 13
269	Nspiring formative assessments in the secondary math classroom	Saturday	1 - 2 p.m.	Sherri Phegley	Grand Ballroom Salon 13
326	Beyond multiple choice: formative assessment for Common Core	Saturday	4 - 5:30 p.m.	Isaiah Carpenter	New Orleans

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
General Interest					
13	The top 10 overlooked features in the TI-84 Plus family of graphing calculators	Friday	10:15 - 11:45 a.m.	John LaMaster	Grand Ballroom Salon 3
15	Love your TI-Nspire™ App for iPad® but miss your TI-Nspire™ Navigator™ system? We'll fix that!	Friday	10:15 - 11:45 a.m.	Allan Bellman	Grand Ballroom Salon 5
35	Getting started with the TI-Nspire™ CX handheld	Friday	10:15 - 11:45 a.m.	Betty Gasque	Canary 4
48	Every student involved – the TI-Nspire™ CX Navigator™ system can make it happen	Friday	12:45 - 2:15 p.m.	Ray Barton	Grand Ballroom Salon 3
50	Getting started with the TI-Nspire™ App for iPad® and more	Friday	12:45 - 2:15 p.m.	Jerry Scherer	Grand Ballroom Salon 5
A	Grant writing for STEM initiatives	Friday	1 - 5 p.m.	Doris Teague	North Tower: Harbor Beach
83	Advanced quantitative reasoning part 1 – number and quantity	Friday	2:30 - 3:30 p.m.	Mike Houston	Grand Ballroom Salon 3
84	High school teachers are using the TI-Nspire™ CX Navigator™ system to deepen student understanding	Friday	2:30 - 3:30 p.m.	Karen Cockburn	Grand Ballroom Salon 4
92	Using the TI-Nspire™ CX technology and Probeware with Chromebooks	Friday	2:30 - 3:30 p.m.	Charlie Smith	Grand Ballroom Salon 14
118	Advanced quantitative reasoning part 2 – statistics and probability	Friday	3:45 - 5:15 p.m.	John Ashurst	Grand Ballroom Salon 3
153	The logical choice	Saturday	8 - 9:30 a.m.	Jim Nakamoto	Grand Ballroom Salon 3
154	Creative solutions with the TI-84 Plus CE graphing calculator	Saturday	8 - 9:30 a.m.	Jean McKenny	Grand Ballroom Salon 4
162	I've got a TI-Nspire™ CX Navigator™ system. Now what?	Saturday	8 - 9:30 a.m.	Alejandra Trevino	Grand Ballroom Salon 14
226	Confessions of a former nonuser	Saturday	11 a.m. - noon	Andrew Amstutz	Grand Ballroom Salon 4
234	<i>When will we ever use this?</i> Some answers with TI-84 Plus graphing calculator applications	Saturday	11 a.m. - noon	Scott Oliver	Grand Ballroom Salon 14
262	Not Nspired? No worries	Saturday	1 - 2 p.m.	Pam Metcalf	Grand Ballroom Salon 4
263	xTreme calculus: Why should seniors have all the fun?	Saturday	1 - 2 p.m.	Vidal Olivares	Grand Ballroom Salon 5
270	Using the TI-Nspire™ CX Navigator™ system to connect with your classroom	Saturday	1 - 2 p.m.	Sarah Schmitz	Grand Ballroom Salon 14
282	TeacherTube® classrooms inspired!	Saturday	1 - 2 p.m.	Jason Smith	Canary 2
306	Setup, installation and first-day usage of the TI-Nspire™ CX Navigator™ system	Saturday	2:15 - 3:45 p.m.	Daryl Ewry	Grand Ballroom Salon 14
331	Using the TI-Nspire™ CX technology to reach hard-to-reach students	Saturday	4 - 5:30 p.m.	Jack Witt	Grand Ballroom Salon 2
332	Those precalculus polynomials are applicable in higher mathematics!	Saturday	4 - 5:30 p.m.	Jay Schiffman	Grand Ballroom Salon 3
333	Best-kept secrets of the TI-84 Plus family of graphing calculators	Saturday	4 - 5:30 p.m.	Deb Nutt	Grand Ballroom Salon 4
352	Seven for seven	Saturday	4 - 5:30 p.m.	Kevin Spry	Canary 1
D	Leading learning in deeply digital mathematics classrooms: tools to inform powerful decision-making	Sunday	8:30 - 10 a.m.	Valerie Mills	Grand Ballroom 4/5/6

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
General Math					
11	Improving math success with the TI-Nspire™ App for iPad®	Friday	10:15 - 11:45 a.m.	Tom Steinke	Grand Ballroom Salon 1
12	From variables to functions: problem-solving using your TI-30XS MultiView™ scientific calculator	Friday	10:15 - 11:45 a.m.	Miriam Santana	Grand Ballroom Salon 2
46	Getting by in a dual classroom	Friday	12:45 - 2:15 p.m.	Matt Almon	Grand Ballroom Salon 1
47	Have a magical day ... graphing	Friday	12:45 - 2:15 p.m.	Holly Terrill	Grand Ballroom Salon 2
81	Making the transition from the TI-84 Plus graphing calculator to the TI-Nspire™ CX handheld	Friday	2:30 - 3:30 p.m.	David Sword	Grand Ballroom Salon 1
82	Assessment, engagement and technology: the perfect fit	Friday	2:30 - 3:30 p.m.	Susan Riker	Grand Ballroom Salon 2
85	Images as Nspiration	Friday	2:30 - 3:30 p.m.	Jody Crothers	Grand Ballroom Salon 5
104	Effectively using challenging tasks to promote students' learning	Friday	2:30 - 3:30 p.m.	Diane Briars	Canary 3
116	Constructivist methods in mathematics with TI technology	Friday	3:45 - 5:15 p.m.	Manuel Antonio Montero Gaona	Grand Ballroom Salon 1
123	Formative assessment and differentiated instruction using the TI-Nspire™ CX Navigator™ system	Friday	3:45 - 5:15 p.m.	Hugh Daniels	Grand Ballroom Salon 10
151	Prepare for online assessments like PARCC/SBAC using the TI-Nspire™ CX Navigator™ system	Saturday	8 - 9:30 a.m.	Pareesa Shirazi	Grand Ballroom Salon 1
152	My favorite discovery activities	Saturday	8 - 9:30 a.m.	Tammy Casey	Grand Ballroom Salon 2
187	Inspire the process: using TI technology to enhance NCTM process standards	Saturday	9:45 - 10:45 a.m.	Maggie Mary	Grand Ballroom Salon 1
188	Let them teach (and understand more): Using TI-Nspire™ CX technology for student-designed lessons	Saturday	9:45 - 10:45 a.m.	Daniel Wilkie	Grand Ballroom Salon 2
189	Modeling in three acts with the TI-84 Plus graphing calculator	Saturday	9:45 - 10:45 a.m.	Linda Griffith	Grand Ballroom Salon 3
224	What's new with the TI-Nspire™ CX technology?	Saturday	11 a.m. - noon	Elena Smirnova	Grand Ballroom Salon 2
225	Question everything!	Saturday	11 a.m. - noon	Ellen Browne	Grand Ballroom Salon 3
230	An introductory tour of TI-Nspire™ CX Teacher Software	Saturday	11 a.m. - noon	Ron Kennedy	Grand Ballroom Salon 10
247	Essential elements of effective mathematics programs	Saturday	11 a.m. - noon	Matt Larson	Canary 3
260	Using the TI-Nspire™ CX technology to explore infinity within finite and using functions to study fractals	Saturday	1 - 2 p.m.	Amin Lalani	Grand Ballroom Salon 2
261	Flipping your TI-Nspire™ classroom	Saturday	1 - 2 p.m.	Valerie Hudson	Grand Ballroom Salon 3
295	What do I do the first day I use TI-Nspire™ technology with my students?	Saturday	2:15 - 3:45 p.m.	Jeremy Zelkowski	Grand Ballroom Salon 1
296	How the brain learns mathematics – ideas from David Sousa	Saturday	2:15 - 3:45 p.m.	Stephanie MacKay	Grand Ballroom Salon 2
320	Pre-service teacher roundtable: the conference in review	Saturday	4 - 5:30 p.m.	Maria Benzon	Washington

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
General Science					
26	What's in my water with the TI-Nspire™ CX handheld	Friday	10:15 - 11:45 a.m.	Judy Day	Crystal Ballroom Salon D
131	Introduction to data collection and analysis with the TI-Nspire™ CX handheld and TI-Nspire™ CX Navigator™ system	Friday	3:45 - 5:15 p.m.	Todd Graba	Crystal Ballroom Salon D
166	Getting to the root of STEM with the TI-Nspire™ handheld	Saturday	8 - 9:30 a.m.	Ed Roberts	Crystal Ballroom Salon D
167	Making the best use of TI technology in a science classroom	Saturday	8 - 9:30 a.m.	Rob Reniewicki	Crystal Ballroom Salon E
203	What does the new TI-84 Plus CE graphing calculator offer to my science classroom?	Saturday	9:45 - 10:45 a.m.	Jacklyn Bonneau	Crystal Ballroom Salon E
239	Science and math look at the thermometer	Saturday	11 a.m. - noon	Tom Cauffield	Crystal Ballroom Salon E
275	Water quality at the pond	Saturday	1 - 2 p.m.	Toni Riebe	Crystal Ballroom Salon E
Geometry					
7	Transformational geometry: innovative, interactive ways to learn and teach with handheld and/or software	Friday	10:15 - 11:45 a.m.	Tom Reardon	New Orleans
8	Discover the definition of the parabola using TI-Nspire™ technology as seen through a CCSS classroom	Friday	10:15 - 11:45 a.m.	Stan Pappo	Los Angeles
76	It's in color? The Cabri™ Jr. app is in color on the TI-84 Plus CE graphing calculator	Friday	2:30 - 3:30 p.m.	Dona McSpadden	New York
77	Conjectures and proofs with TI-Nspire™ technology related to stars created with parabolas	Friday	2:30 - 3:30 p.m.	Jean-Jacques Dahan	New Orleans
78	The mathematics of car symbols using the TI-Nspire™ CX technology	Friday	2:30 - 3:30 p.m.	Raymond Rozen	Los Angeles
112	Math and the arts	Friday	3:45 - 5:15 p.m.	Leza Baker	New Orleans
113	How much is in there?	Friday	3:45 - 5:15 p.m.	Leanne Barbour	Los Angeles
158	Exploring the geometry construction menu	Saturday	8 - 9:30 a.m.	Martin Sanchez	Grand Ballroom Salon 10
174	Using the TI-Nspire™ CX CAS handheld to clarify the understanding of geometric transformations	Saturday	8 - 9:30 a.m.	Zalman Usiskin	Canary 2
183	History and anatomy of the golden ratio	Saturday	9:45 - 10:45 a.m.	Scott Washburn	New Orleans
184	Why are air-conditioning ducts not triangular? Find out using the TI-84 Plus Silver Edition graphing calculator!	Saturday	9:45 - 10:45 a.m.	Jim Swick	Los Angeles
219	Guess who's back, back again, TI-84 Plus calculators are back, tell a friend	Saturday	11 a.m. - noon	Levi Straight	New Orleans
220	The happiest geometry place on earth	Saturday	11 a.m. - noon	Pamela Baker	Los Angeles
255	Geometry mini lessons for the TI-Nspire™ CX handhelds and the TI-Nspire™ CX Navigator™ system	Saturday	1 - 2 p.m.	Bridget Streeb	New Orleans
256	Using the TI-Nspire™ CX technology to explore, investigate and discover in the geometry classroom	Saturday	1 - 2 p.m.	Damion Beth	Los Angeles
292	I have identified a sequence of rigid motions – now what?	Saturday	2:15 - 3:45 p.m.	Stephen West	Los Angeles
317	#SlowMath: Using TI-Nspire™ technology to look for meaning before the procedure	Saturday	2:15 - 3:45 p.m.	Jennifer Wilson	Canary 2

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
Middle Grades Math					
9	Math – It's a small world after all!	Friday	10:15 - 11:45 a.m.	Jane Damaske	Denver
10	Teaching statistics with student-created data	Friday	10:15 - 11:45 a.m.	David Scott	Chicago
45	Graphing one-variable data using the TI-84 Plus family of graphing calculators	Friday	12:45 - 2:15 p.m.	Valerie Roebuck	Chicago
79	Exploring equations and relationships with the TI-Nspire™ CX technology in junior high math	Friday	2:30 - 3:30 p.m.	Sarah Bauguss	Denver
80	Statistics in the middle using the TI-Nspire™ CX handheld	Friday	2:30 - 3:30 p.m.	Alice Carson	Chicago
114	Five major math concepts that ninth-graders do not understand	Friday	3:45 - 5:15 p.m.	Ellen Johnston	Denver
149	Strategies to Nspire: engaging struggling learners with technology	Saturday	8 - 9:30 a.m.	Melissa Sigley	Denver
150	Statistics in middle school and the TI-Nspire™ CX technology	Saturday	8 - 9:30 a.m.	Murney Bell	Chicago
185	Art in the coordinate plane using the TI-Nspire™ CX technology or TI-84 Plus graphing calculator (a new twist on turkey hands)	Saturday	9:45 - 10:45 a.m.	Naomi Kokason	Denver
186	Performance tasks in the middle school math classroom using the TI-Nspire™ CX technology	Saturday	9:45 - 10:45 a.m.	Rachael Smilowitz	Chicago
191	Using the TI-Nspire™ App for iPad® to understand pi	Saturday	9:45 - 10:45 a.m.	Ann Wheeler	Grand Ballroom Salon 5
221	Using applications, motion detectors and movie clips in the middle grades	Saturday	11 a.m. - noon	Miguel Garcia	Denver
228	Building Concepts: ratios and proportional relationships	Saturday	11 a.m. - noon	Daniel Ilaria	Grand Ballroom Salon 6
257	What is the quadrant count ratio and why would I want to teach it?	Saturday	1 - 2 p.m.	Susan Howe	Denver
258	Data and statistics for the TI-84 Plus CE graphing calculator	Saturday	1 - 2 p.m.	Pam Littleton	Chicago
291	Teaching with TI-Nspire™ CX handhelds and TI-Nspire™ CX Navigator™ technology: Can you guess my age?	Saturday	2:15 - 3:45 p.m.	Victoria Soto	New Orleans
293	Mastering math concepts	Saturday	2:15 - 3:45 p.m.	Doug Smeltz	Denver
294	Dynamic middle school math with the TI-Nspire™ CX technology	Saturday	2:15 - 3:45 p.m.	Maria Benzon	Chicago
297	Building Concepts: change the way you teach	Saturday	2:15 - 3:45 p.m.	Chris Longueira	Grand Ballroom Salon 3
298	Exploring statistics and probability in middle grades with the TI-84 Plus CE graphing calculator	Saturday	2:15 - 3:45 p.m.	Betty Gasque	Grand Ballroom Salon 4
328	Flipping over transformations with the TI-84 Plus graphing calculator	Saturday	4 - 5:30 p.m.	Melissa Jackson	Denver
329	Growing an understanding of proportional reasoning and algebraic thinking using the TI-84 Plus CE graphing calculator	Saturday	4 - 5:30 p.m.	Gloria Beswick	Chicago
F	Visualizing ratios and proportional relationships: implications for our classrooms	Sunday	8:30 - 10 a.m.	Michelle Rinehart	Grand Ballroom 12/13/14

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
Middle Grades Science					
61	Titration zombies: combatting the zombie plague with TI-Nspire™ technology	Friday	12:45 - 2:15 p.m.	Mike Cimino	Crystal Ballroom Salon D
240	Astronomical relationships: graphical models of the solar system with the TI-Nspire™ CX technology	Saturday	11 a.m. - noon	Christopher Broomall	Crystal Ballroom Salon F
276	Blubber evolution using the TI-Nspire™ CX handheld	Saturday	1 - 2 p.m.	Maureen Mack	Crystal Ballroom Salon F
Physics					
60	Slopes and areas, velocity and distance: analysis with the TI-84 Plus graphing calculator and Calculator-Based Ranger™ motion sensor	Friday	12:45 - 2:15 p.m.	Gregory Williams	Crystal Ballroom Salon C
237	Sliders and Jacobi's law: TI-Nspire™ CX handheld	Saturday	11 a.m. - noon	Ian Galloway	Crystal Ballroom Salon C
299	It's all relative on the TI-Nspire™ App for iPad®	Saturday	2:15 - 3:45 p.m.	Marsha Guntharp	Grand Ballroom Salon 5
Precalculus					
20	Nspiring labs that aren't just goofy	Friday	10:15 - 11:45 a.m.	Linda Antinone	Grand Ballroom Salon 12
21	Fab four on the TI-84 Plus graphing calculator	Friday	10:15 - 11:45 a.m.	Kim Schjelderup	Grand Ballroom Salon 13
51	Integrating the TI-Nspire™ App for iPad® into a rich task	Friday	12:45 - 2:15 p.m.	Art Mabbott	Grand Ballroom Salon 6
55	Walking, cooling and hearing mathematics	Friday	12:45 - 2:15 p.m.	Marta Rosas	Grand Ballroom Salon 12
56	Make connections to Common Core mathematical modeling in high school algebra and precalculus with the TI-Nspire™ CX CAS technology	Friday	12:45 - 2:15 p.m.	Ronald Armontrout	Grand Ballroom Salon 13
88	Problem-solving curriculum: Phillips Exeter and TI-Nspire™ software	Friday	2:30 - 3:30 p.m.	John Cocharo	Grand Ballroom Salon 10
90	Logarithms: yesterday, today and tomorrow	Friday	2:30 - 3:30 p.m.	Deborah Hughes Hallett	Grand Ballroom Salon 12
91	Speed dating with the help of a TI-84 Plus CE graphing calculator	Friday	2:30 - 3:30 p.m.	Jan Mitchener	Grand Ballroom Salon 13
125	Using TI-Nspire™ documents in precalculus	Friday	3:45 - 5:15 p.m.	Philip Magner	Grand Ballroom Salon 12
146	Want to be a millionaire?	Saturday	8 - 9:30 a.m.	Patricia Carroll Bowling	New York
160	Modeling nature's trigonometric nature on the TI-84 Plus graphing calculator	Saturday	8 - 9:30 a.m.	Lynda Ferneyhough	Grand Ballroom Salon 12
200	The TI-84 Plus graphing calculator in secondary math, in preparation for a successful AP® Calculus	Saturday	9:45 - 10:45 a.m.	Fan Disher	Crystal Ballroom Salon B
227	Flipping through transformations: Using TI-Nspire™ App for iPad® and/or the TI-84 Plus C Silver Edition graphing calculator	Saturday	11 a.m. - noon	Holly Siebert	Grand Ballroom Salon 5
248	TI-Nspire™ CX CAS handheld explorations to prepare students for precalculus	Saturday	11 a.m. - noon	Ken Collins	Canary 4
284	Using a problem-solving activity to develop mathematical habits of mind	Saturday	1 - 2 p.m.	Lynn Adsit	Canary 4

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
Precalculus					
308	A TI-84 Plus graphing calculator project: a creative test alternative for precalculus	Saturday	2:15 - 3:45 p.m.	Stuart Moskowitz	Crystal Ballroom Salon B
319	Visualizing complex numbers with the TI-Nspire™ CX CAS technology	Saturday	2:15 - 3:45 p.m.	Gregory Foley	Canary 4
344	The fitting room: finding a model of best fit with the TI-84 Plus Silver Edition graphing calculator	Saturday	4 - 5:30 p.m.	Doris Zinck	Crystal Ballroom Salon C
Programming					
30	Teaching beginner programming concepts with the TI-84 Plus CE graphing calculator	Friday	10:15 - 11:45 a.m.	Christopher Mitchell	Crystal Ballroom Salon L
52	Color your world with Lua programming	Friday	12:45 - 2:15 p.m.	Becky Byer	Grand Ballroom Salon 9
65	Coding and computer science with the TI-84 Plus family of graphing calculators	Friday	12:45 - 2:15 p.m.	Toni Norrell	Crystal Ballroom Salon L
87	Learn to Lua	Friday	2:30 - 3:30 p.m.	John Hanna	Grand Ballroom Salon 9
135	Hello world! An introduction to writing code to program TI-Nspire™ technology	Friday	3:45 - 5:15 p.m.	Becky Underwood	Crystal Ballroom Salon L
170	Programming with the TI-Nspire™ handheld	Saturday	8 - 9:30 a.m.	Jared Despain	Crystal Ballroom Salon L
212	Ten minutes of code	Saturday	9:45 - 10:45 a.m.	John Hanna	Canary 4
242	Teaching adolescent and young adult students TI-Basic programming with the TI-84 Plus Silver Edition graphing calculator	Saturday	11 a.m. - noon	John Isaacs	Crystal Ballroom Salon L
278	Achieving a shared goal with AP* Computer Science A and AP* Computer Science principles	Saturday	1 - 2 p.m.	Lien Diaz	Crystal Ballroom Salon L
314	Super Lua users group (SLUG fest)	Saturday	2:15 - 3:45 p.m.	Stephen Arnold	Crystal Ballroom Salon L
Statistics					
356	Using TI-84 Plus graphing calculator simulations to determine if a die is fair	Friday	10:15 - 11:45 a.m.	Gloria Barrett	North Tower: Aruba
357	Get psyched about data!	Friday	10:15 - 11:45 a.m.	Ricci Underwood	North Tower: Bahamas
376	Dr. Sheldon Cooper presents <i>Fun with Flags</i>	Friday	10:15 - 11:45 a.m.	Josh Mize	North Tower: Grand Cayman
358	Introducing binomial probabilities	Friday	12:45 - 2:15 p.m.	Andy Blevins	North Tower: Aruba
359	AP* Statistics simulation activities performed on the TI-84 Plus graphing calculator and TI-Nspire™ CX handheld	Friday	12:45 - 2:15 p.m.	Chris True	North Tower: Bahamas
377	Statistics from beginning to end	Friday	12:45 - 2:15 p.m.	Diane Broberg	North Tower: Grand Cayman
360	So you have to teach Common Core statistics – now what? Learning statistics with the TI-Nspire™ CX handheld	Friday	2:30 - 3:30 p.m.	Mary Giannetto	North Tower: Aruba
361	Using real-world data and TI-Nspire™ technology in statistics and all other math classes	Friday	2:30 - 3:30 p.m.	Jessica Kachur	North Tower: Bahamas
378	Statistics and calculus: exploring normal distribution using the TI-84 Plus Silver Edition graphing calculator	Friday	2:30 - 3:30 p.m.	Anne Katz	North Tower: Grand Cayman

Sessions by Subject

No.	Title	Day	Time	Presenter	Room
Statistics					
362	AP* Statistics: Type II error and the power of a test	Friday	3:45 - 5:15 p.m.	Mike Koehler	North Tower: Aruba
363	Using TI-Nspire™ technology to enhance understanding of the central limit theorem	Friday	3:45 - 5:15 p.m.	Lee Kucera	North Tower: Bahamas
379	M&M's® and Bayes' theorem	Friday	3:45 - 5:15 p.m.	Deobra Solomon	North Tower: Grand Cayman
364	We can do the <i>nae nae</i> in mathematics too!	Saturday	8 - 9:30 a.m.	Kathleen McKinley	North Tower: Aruba
365	Should I foul him or not? Using TI-Nspire™ technology to teach conditional and compound probability	Saturday	8 - 9:30 a.m.	Tracy Wingert	North Tower: Bahamas
B	Statistics symposium: 10 really cool things to teach in statistics	Saturday	8 a.m. - 5:30 p.m.	Gail Burrill	North Tower: Harbor Beach
366	Time after time: analyzing quantitative data	Saturday	9:45 - 10:45 a.m.	Vonda Morris	North Tower: Aruba
367	Graphical representation for the statistical interpretation of data	Saturday	9:45 - 10:45 a.m.	Rafael R. Canales Pastrana	North Tower: Bahamas
381	Adventures in flipping a math class	Saturday	9:45 - 10:45 a.m.	Joel Evans	North Tower: Grand Cayman
368	Drawing connections with probability distributions	Saturday	11 a.m. - noon	Todd Steckler	North Tower: Aruba
369	Teaching statistics with technology	Saturday	11 a.m. - noon	Cory Cloud	North Tower: Bahamas
370	Epidemiology and statistics using the TI-84 Plus CE graphing calculator	Saturday	1 - 2 p.m.	Corina Srygley	North Tower: Aruba
371	Statistics activities for middle school students using the TI-84 Plus C Silver Edition graphing calculator	Saturday	1 - 2 p.m.	Gail Gallitano	North Tower: Bahamas
383	Mathematical Modelling with TI – using TI-84 family and TI-Nspire™ technology	Saturday	1 - 2 p.m.	Melissa Hourigan	North Tower: Grand Cayman
372	Digging deeper into random variables and sampling distributions	Saturday	2:15 - 3:45 p.m.	Lisa Conzemius	North Tower: Aruba
373	Sports statistics – using the TI-Nspire™ CX handhelds to connect math and athletics	Saturday	2:15 - 3:45 p.m.	Rachael Gorsuch	North Tower: Bahamas
374	Probability simulation on the TI-Nspire™ CX handhelds	Saturday	4 - 5:30 p.m.	David Kohmetscher	North Tower: Aruba

Trigonometry					
28	Making connections in trig with TI-Nspire™ CX technology	Friday	10:15 - 11:45 a.m.	Scott Knapp	Crystal Ballroom Salon F
98	Modeling with trigonometric functions	Friday	2:30 - 3:30 p.m.	Yew Fook Chan	Crystal Ballroom Salon F
304	Connecting with polar curves	Saturday	2:15 - 3:45 p.m.	Dennis Wilson	Grand Ballroom Salon 12
339	My TI-84 Plus Silver Edition graphing calculator can predict the weather?	Saturday	4 - 5:30 p.m.	Bill Kujawa	Grand Ballroom Salon 12

Friday Sessions by Time

Come
Learn
Go
Teach

#T3IC

Sessions by Time

Subject	No.	Title	Presenter	Room
Friday 10:15 – 11:45 a.m.				
Administrator	29	Choosing the right device or application: conversations in the professional learning community	Susan Horowitz	Crystal Ballroom Salon K
Algebra I	2	What the APP is that?	Gina Allred	Tampa
Algebra I	3	To feel the algebra, you've got to move it!	Lisa Suarez	St. Louis
Algebra I	6	Implementing project-based learning with the TI-Nspire™ technology	Sherri Abel	New York
Algebra I	34	Getting started with the TI-84 Plus CE graphing calculator	Jane Barnard	Canary 3
Algebra II	4	Simulations for algebra through precalculus using the TI-84 Plus Silver Edition graphing calculator	Alice Hess	San Francisco
Algebra II	5	Discover the magic: Common Core statistics for algebra II	Sharon Cichocki	San Antonio
Algebra II	22	Scrutinizing functions with the TI-84 Plus CE graphing calculator	Ann Schlemper	Grand Ballroom Salon 14
Authoring	17	Introduction to Lua scripting on the TI-Nspire™ handheld	Bryson Perry	Grand Ballroom Salon 9
Authoring	18	Creating a Word document instruction sheet	Ray Fox	Grand Ballroom Salon 10
Calculus	19	Conceptual development of calculus in an active learning classroom using the TI-Nspire™ CX CAS technology	Douglas Lapp	Grand Ballroom Salon 11
Chemistry	25	Adventures in thermochemistry – using the TI-Nspire™ technology to see energy	Ray Lesniewski	Crystal Ballroom Salon C
Computer Algebra System (CAS)	31	A CAS primer	Fred Ferneyhough	Crystal Ballroom Salon M
Computer Algebra System (CAS)	32	Using the TI-Nspire™ CX CAS handhelds and the TI-Nspire™ CX Navigator™ system to transform a traditional algebra I course	Debbie Dicker	Crystal Ballroom Salon N
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	1	Vertical teams: teaching rates in grade 9 through AP* STEM courses	Serena Magrogan	Washington
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	23	TI-Nspire™ CX technology and the mathematical and scientific process	Delbra Robinson	Crystal Ballroom Salon A
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	24	Statistics and environmental science – linking science and data analysis using real-world data	Cindy Chesley	Crystal Ballroom Salon B
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	27	Breathe in, breathe out. Relax. Breathe in, breathe out.	Stacy Thibodeaux	Crystal Ballroom Salon E
Elementary Math	16	Nspire'd fractions	Marsha Burkholder	Grand Ballroom Salon 6
Formative Assessment	33	Questioning and other ways of eliciting evidence	Dylan Wiliam	Canary 1/2

Sessions by Time

FEBRUARY 26

Friday

Subject	No.	Title	Presenter	Room
Friday 10:15 – 11:45 a.m.				
General Interest	13	The top 10 overlooked features in the TI-84 Plus family of graphing calculators	John LaMaster	Grand Ballroom Salon 3
General Interest	15	Love your TI-Nspire™ App for iPad® but miss your TI-Nspire™ Navigator™ system? We'll fix that!	Allan Bellman	Grand Ballroom Salon 5
General Interest	35	Getting started with the TI-Nspire™ CX handheld	Betty Gasque	Canary 4
General Math	11	Improving math success with the TI-Nspire™ App for iPad®	Tom Steinke	Grand Ballroom Salon 1
General Math	12	From variables to functions: problem-solving using your TI-30XS MultiView™ scientific calculator	Miriam Santana	Grand Ballroom Salon 2
General Science	26	What's in my water with the TI-Nspire™ CX handheld	Judy Day	Crystal Ballroom Salon D
Geometry	7	Transformational geometry: innovative, interactive ways to learn and teach with handheld and/or software	Tom Reardon	New Orleans
Geometry	8	Discover the definition of the parabola using TI-Nspire™ technology as seen through a CCSS classroom	Stan Pappo	Los Angeles
Middle Grades Math	9	Math – It's a small world after all!	Jane Damaske	Denver
Middle Grades Math	10	Teaching statistics with student-created data	David Scott	Chicago
Precalculus	20	Nspiring labs that aren't just goofy	Linda Antinone	Grand Ballroom Salon 12
Precalculus	21	Fab four on the TI-84 Plus graphing calculator	Kim Schjelderup	Grand Ballroom Salon 13
Programming	30	Teaching beginner programming concepts with the TI-84 Plus CE graphing calculator	Christopher Mitchell	Crystal Ballroom Salon L
Statistics	356	Using TI-84 Plus graphing calculator simulations to determine if a die is fair	Gloria Barrett	North Tower: Aruba
Statistics	357	Get psyched about data!	Ricci Underwood	North Tower: Bahamas
Statistics	376	Dr. Sheldon Cooper presents <i>Fun with Flags</i>	Josh Mize	North Tower: Grand Cayman
Trigonometry	28	Making connections in trig with TI-Nspire™ CX technology	Scott Knapp	Crystal Ballroom Salon F

Friday 12:45 – 2:15 p.m.				
Administrator	64	Nspiration in math and science instruction	Missy Huffty	Crystal Ballroom Salon K
Administrator	68	Leadership for teacher learning	Dylan Wiliam	Canary 1/2
Algebra I	36	Who, me? I am going to teach statistics?	Robin Levine-Wissing	Washington
Algebra I	37	Asking questions that count and listening to the answers	Gail Burrill	Tampa
Algebra I	38	Step it up and break it down: dynamic differentiation to support student-centered learning	Kristy Curran	St. Louis
Algebra I	41	I've turned it on, now what? Getting started with the TI-Nspire™ CX handheld	Sherry Everding	New York
Algebra I	54	Engaging students with the TI-84 Plus and TI-84 Plus C Silver Edition graphing calculators and revised apps	Linda Apicella	Grand Ballroom Salon 11
Algebra I	63	Introductory TI-84 Plus CE graphing calculator menu programming	Mark von Rosenberg	Crystal Ballroom Salon F

Sessions by Time

Subject	No.	Title	Presenter	Room
Friday 12:45 – 2:15 p.m.				
Algebra II	39	Residuals have a story to tell	Kara Leaman	San Francisco
Algebra II	44	Using the TI-84 Plus graphing calculator's color technology to meet the Common Core Math Practices	Karen Campe	Denver
Assessment	57	Common Core composition – activities, assessment and the TI-Nspire™ technology	Veronica Carlson	Grand Ballroom Salon 14
Authoring	53	Dancing with Lua: using Lua to enhance constructions made on a TI-Nspire™ graphs page	Adam Pennell	Grand Ballroom Salon 10
Computer Algebra System (CAS)	66	Getting answers isn't enough – let students know if the answers are correct with the TI-Nspire™ CX CAS technology	Patsy Fagan	Crystal Ballroom Salon M
Computer Algebra System (CAS)	67	Tips with literal equations – the CAS in algebra	Sean Bird	Crystal Ballroom Salon N
Computer Algebra System (CAS)	69	A CAS at my school? How can I get such a program set up?	Ray Klein	Canary 3
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	58	Measuring wind chill with the TI-Nspire™ CX CAS handheld	Scott Keltner	Crystal Ballroom Salon A
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	59	Blasting off into STEM	Todd Morstein	Crystal Ballroom Salon B
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	62	Roots (what we have to plant for STEM to take hold)	Doug Roberts	Crystal Ballroom Salon E
Formative Assessment	49	Using the TI-Nspire™ CX Navigator™ system for face-to-face time in a flipped class	Sharon Bruce	Grand Ballroom Salon 4
General Interest	48	Every student involved – the TI-Nspire™ CX Navigator™ system can make it happen	Ray Barton	Grand Ballroom Salon 3
General Interest	50	Getting started with the TI-Nspire™ App for iPad® and more	Jerry Scherer	Grand Ballroom Salon 5
General Math	46	Getting by in a dual classroom	Matt Almon	Grand Ballroom Salon 1
General Math	47	Have a magical day ... graphing	Holly Terrill	Grand Ballroom Salon 2
Middle Grades Math	45	Graphing one-variable data using the TI-84 Plus family of graphing calculators	Valerie Roebuck	Chicago
Middle Grades Science	61	Titration zombies: combatting the zombie plague with TI-Nspire™ technology	Mike Cimino	Crystal Ballroom Salon D
Physics	60	Slopes and areas, velocity and distance: analysis with the TI-84 Plus graphing calculator and Calculator-Based Ranger™ motion sensor	Gregory Williams	Crystal Ballroom Salon C
Precalculus	51	Integrating the TI-Nspire™ App for iPad® into a rich task	Art Mabbott	Grand Ballroom Salon 6
Precalculus	55	Walking, cooling and hearing mathematics	Marta Rosas	Grand Ballroom Salon 12
Precalculus	56	Make connections to Common Core mathematical modeling in high school algebra and precalculus with the TI-Nspire™ CX CAS technology	Ronald Armontrout	Grand Ballroom Salon 13

Sessions by Time

FEBRUARY 26

Friday

Subject	No.	Title	Presenter	Room
Friday 12:45 – 2:15 p.m.				
Programming	52	Color your world with Lua programming	Becky Byer	Grand Ballroom Salon 9
Programming	65	Coding and computer science with the TI-84 Plus family of graphing calculators	Toni Norrell	Crystal Ballroom Salon L
Statistics	358	Introducing binomial probabilities	Andy Blevins	North Tower: Aruba
Statistics	359	AP* Statistics simulation activities performed on the TI-84 Plus graphing calculator and TI-Nspire™ CX handheld	Chris True	North Tower: Bahamas
Statistics	377	Statistics from beginning to end	Diane Broberg	North Tower: Grand Cayman
Friday 1 – 5 p.m.				
General Interest	A	Grant writing for STEM initiatives	Doris Teague	North Tower: Harbor Beach
Friday 2:30 – 3:30 p.m.				
Administrator	99	Technology as a tool of investigation in the classroom: an administrator's <i>look-fors</i>	Tammy L. Jones	Crystal Ballroom Salon K
Administrator	100	Designing engaging and collaborative lessons for student success	Page Dettman	Crystal Ballroom Salon L
Algebra I	71	Using great tasks and the TI-Nspire™ CX technology to teach statistics topics in algebra	Kyle Atkin	Washington
Algebra I	72	Math – It's a small world after all!	Judy Hicks	Tampa
Algebra I	73	How the TI-Nspire™ CX technology changed the way I teach	Sandra Hocutt	St. Louis
Algebra I	105	Overview of the TI-30Xa scientific calculator	Beth Smith	Canary 4
Algebra II	74	An Nspired look at transformations in algebra	Landy Godbold	San Francisco
Algebra II	75	Back to basics with the TI-84 Plus graphing calculator to enhance mathematics	Joyce Lee	San Antonio
Algebra II	86	The power of data: how to take full advantage of data collection using the TI-Nspire™ App for iPad®	Jon Lepeska	Grand Ballroom Salon 6
Biology	96	Getting started with Vernier sensors in biology	Leann Iacuone	Crystal Ballroom Salon D
Computer Algebra System (CAS)	101	Using the TI-Nspire™ CX CAS handheld to save time in teaching Common Core algebra I	Anthony Farrell	Crystal Ballroom Salon M
Computer Algebra System (CAS)	102	The cubic: the polynomial that keeps on giving	Peter Flynn	Crystal Ballroom Salon N
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	94	Probes, data collection and stats!	Sandra Tweedy	Crystal Ballroom Salon B
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	97	STEM Behind Health: curing Type 1 diabetes	Jeff Lukens	Crystal Ballroom Salon E

Sessions by Time

Subject	No.	Title	Presenter	Room
Friday 2:30 – 3:30 p.m.				
General Interest	83	Advanced quantitative reasoning part 1 – number and quantity	Mike Houston	Grand Ballroom Salon 3
General Interest	84	High school teachers are using the TI-Nspire™ CX Navigator™ system to deepen student understanding	Karen Cockburn	Grand Ballroom Salon 4
General Interest	92	Using the TI-Nspire™ CX technology and Proeware with Chromebooks	Charlie Smith	Grand Ballroom Salon 14
General Math	81	Making the transition from the TI-84 Plus graphing calculator to the TI-Nspire™ CX handheld	David Sword	Grand Ballroom Salon 1
General Math	82	Assessment, engagement and technology: the perfect fit	Susan Riker	Grand Ballroom Salon 2
General Math	85	Images as Nspiration	Jody Crothers	Grand Ballroom Salon 5
General Math	104	Effectively using challenging tasks to promote students' learning	Diane Briars	Canary 3
Geometry	76	It's in color? The Cabri™ Jr. app is in color on the TI-84 Plus CE graphing calculator	Dona McSpadden	New York
Geometry	77	Conjectures and proofs with TI-Nspire™ technology related to stars created with parabolas	Jean-Jacques Dahan	New Orleans
Geometry	78	The mathematics of car symbols using the TI-Nspire™ CX technology	Raymond Rozen	Los Angeles
Middle Grades Math	79	Exploring equations and relationships with the TI-Nspire™ CX technology in junior high math	Sarah Bauguss	Denver
Middle Grades Math	80	Statistics in the middle using the TI-Nspire™ CX handheld	Alice Carson	Chicago
Precalculus	88	Problem-solving curriculum: Phillips Exeter and TI-Nspire™ software	John Cocharo	Grand Ballroom Salon 10
Precalculus	90	Logarithms: yesterday, today and tomorrow	Deborah Hughes Hallett	Grand Ballroom Salon 12
Precalculus	91	Speed dating with the help of a TI-84 Plus CE graphing calculator	Jan Mitchener	Grand Ballroom Salon 13
Programming	87	Learn to Lua	John Hanna	Grand Ballroom Salon 9
Statistics	360	So you have to teach Common Core statistics – now what? Learning statistics with the TI-Nspire™ CX handheld	Mary Giannetto	North Tower: Aruba
Statistics	361	Using real-world data and TI-Nspire™ technology in statistics and all other math classes	Jessica Kachur	North Tower: Bahamas
Statistics	378	Statistics and calculus: exploring normal distribution using the TI-84 Plus Silver Edition graphing calculator	Anne Katz	North Tower: Grand Cayman
Trigonometry	98	Modeling with trigonometric functions	Yew Fook Chan	Crystal Ballroom Salon F

Sessions by Time

FEBRUARY 26

Friday

Subject	No.	Title	Presenter	Room
Friday 3:45 – 5:15 p.m.				
Administrator	138	Q&A with Dylan Wiliam	Dylan Wiliam	Canary 1/2
Algebra I	106	Implementing Common Core Math Practices while on your TI-84 Plus graphing calculator family staycation!	Edward Chaves	Washington
Algebra I	107	Applications to enhance learning	JoAnn Miltenberg	Tampa
Algebra I	111	MAFS or CCSS: Use the TI-Nspire™ CX technology to develop mathematical practices in your students	Marian Prince	New York
Algebra I	121	iPads® and flipped mathematics	Sandra Speller	Grand Ballroom Salon 6
Algebra II	109	Fun and engaging activities using technology that address Common Core	Randy Lobe	San Francisco
Algebra II	110	No bones about it	Sherrina Clark	San Antonio
Algebra II	115	Algebra II Common Core – get Nspired to navigate your way through the standards!	Robyn Poulsen	Chicago
Algebra II	122	No handhelds? No problem! Use TI-Nspire™ software as a whole-class demonstration tool	Julie Riggins	Grand Ballroom Salon 9
Assessment	127	Meaningful two-way assessments using the TI-Nspire™ CX Navigator™ system	Robin Gapinski	Grand Ballroom Salon 14
Calculus	117	Flipping AP* Calculus and geometry with the TI-Nspire™ CX CAS handheld and TI-Nspire™ CX Navigator™ system	Joanne Ryan	Grand Ballroom Salon 2
Computer Algebra System (CAS)	137	Using the CAS in middle school math	Michelle Bonds	Crystal Ballroom Salon N
Computer Algebra System (CAS)	139	CAS activities that integrate dynamic geometry and dynamic algebra using handhelds, the TI-Nspire™ App for iPad® or TI-Nspire™ software	Tom Reardon	Canary 3
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	128	Exploring motion with live data and CAS technology: putting the M in STEM	Stephen Arnold	Crystal Ballroom Salon A
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	129	Engineering – the missing piece of the puzzle!	Greg Dodd	Crystal Ballroom Salon B
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	130	That's the way the ball bounces	Michelle Merriweather	Crystal Ballroom Salon C

Sessions by Time

Subject	No.	Title	Presenter	Room
Friday 3:45 – 5:15 p.m.				
Elementary Math	124	Fractions: it's Mickey Mouse – teaching and learning with the TI-15 Explorer™ elementary calculator and TI-30XS MultiView™ scientific calculator	Chris Ruda	Grand Ballroom Salon 11
Formative Assessment	119	Using the TI-Nspire™ Teacher Software and TI-Nspire™ CX Navigator™ Software for discovery, immediate assessment and remediation	Mary Brese	Grand Ballroom Salon 4
General Interest	118	Advanced quantitative reasoning part 2 – statistics and probability	John Ashurst	Grand Ballroom Salon 3
General Math	116	Constructivist methods in mathematics with TI technology	Manuel Antonio Montero Gaona	Grand Ballroom Salon 1
General Math	123	Formative assessment and differentiated instruction using the TI-Nspire™ CX Navigator™ system	Hugh Daniels	Grand Ballroom Salon 10
General Science	131	Introduction to data collection and analysis with the TI-Nspire™ CX handheld and TI-Nspire™ CX Navigator™ system	Todd Graba	Crystal Ballroom Salon D
Geometry	112	Math and the arts	Leza Baker	New Orleans
Geometry	113	How much is in there?	Leanne Barbour	Los Angeles
Middle Grades Math	114	Five major math concepts that ninth-graders do not understand	Ellen Johnston	Denver
Precalculus	125	Using TI-Nspire™ documents in precalculus	Philip Magner	Grand Ballroom Salon 12
Programming	135	Hello world! An introduction to writing code to program TI-Nspire™ technology	Becky Underwood	Crystal Ballroom Salon L
Statistics	362	AP* Statistics: Type II error and the power of a test	Mike Koehler	North Tower: Aruba
Statistics	363	Using TI-Nspire™ technology to enhance understanding of the central limit theorem	Lee Kucera	North Tower: Bahamas
Statistics	379	M&M's® and Bayes' theorem	Deobra Solomon	North Tower: Grand Cayman

Saturday Sessions by Time

Come
Learn
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Subject	No.	Title	Presenter	Room
Saturday 8 – 9:30 a.m.				
Administrator	169	Advancing science, technology, engineering and math (STEM) through systemic districtwide efforts	Kristin Brown	Crystal Ballroom Salon K
Algebra I	141	Provoking algebraic thinking with the TI-Nspire™ CX technology	Angela Melnyk	Washington
Algebra I	142	Investigating statistics in algebra I using the TI-Nspire™ CX technology	Katie Martinez	Tampa
Algebra I	143	Meeting the math standards with the help of a graphing calculator	Fred Decovsky	St. Louis
Algebra I	157	Creating your TI-84 Plus CE graphing calculator classroom using the TI-SmartView™ CE Emulator Software and TI-Connect™ CE software for the TI-84 Plus graphing family	Margo Lynn Mankus	Grand Ballroom Salon 9
Algebra I	175	The TI-84 Plus family of graphing calculators – strategies and activities for your mathematics classroom	Ruth Casey	Canary 3
Algebra I	176	Notice and note using the TI-Nspire™ CX technology: doodle to show what you know	Jill Gough	Canary 4
Algebra II	144	Constructing algebra with the TI-Nspire™ CX handheld	Pamela Harris	San Francisco
Algebra II	145	Algebraic inverses and the TI-84 Plus CE graphing calculator	Kim Thomas	San Antonio
Algebra II	155	Getting APPY with TI-Nspire™ technology	Matthew Owens	Grand Ballroom Salon 5
Authoring	168	Quick but effective interactive step-by-step TI-Nspire™ activities – how to use, make and get	Heidi Rudolph	Crystal Ballroom Salon F
Calculus	147	Using TI-Nspire™ 3-D graphing to create solids of revolution	Steve Phelps	New Orleans
Calculus	159	Using the TI-84 Plus CE graphing calculator in calculus	Don Worcester	Grand Ballroom Salon 11
Computer Algebra System (CAS)	173	Problem pearls from Park City using the TI-Nspire™ CX CAS handheld	Thomas Dick	Canary 1
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	163	Placeholder for E in STEM session	Fred Fotsch	Crystal Ballroom Salon A
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	164	Stepping up STEM with TI-Nspire™ CX technology	Audrey Cucci	Crystal Ballroom Salon B
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	165	Pictures + TI-Nspire™ CX handheld + Calculator-Based Ranger 2™ motion sensor + TI-84 Plus graphing calculator = real math!	John Bament	Crystal Ballroom Salon C
Elementary Math	172	Young mathematicians, multiple representations and the TI-10 and TI-15 Explorer™ elementary calculators	Tammy L. Jones	Crystal Ballroom Salon N
Formative Assessment	148	Best student success strategy = formative assessment: with and without the TI-Nspire™ CX Navigator™ system	Katie England	Los Angeles
Formative Assessment	161	Question-formulating technique with the TI-Nspire™ CX technology	RuthieAnn Trujillo	Grand Ballroom Salon 13
General Interest	153	The logical choice	Jim Nakamoto	Grand Ballroom Salon 3
General Interest	154	Creative solutions with the TI-84 Plus CE graphing calculator	Jean McKenny	Grand Ballroom Salon 4

Sessions by Time

FEBRUARY 27
Saturday

Subject	No.	Title	Presenter	Room
Saturday 8 – 9:30 a.m.				
General Interest	162	I've got a TI-Nspire™ CX Navigator™ system. Now what?	Alejandra Trevino	Grand Ballroom Salon 14
General Math	151	Prepare for online assessments like PARCC/SBAC using the TI-Nspire™ CX Navigator™ system	Pareesa Shirazi	Grand Ballroom Salon 1
General Math	152	My favorite discovery activities	Tammy Casey	Grand Ballroom Salon 2
General Science	166	Getting to the root of STEM with the TI-Nspire™ handheld	Ed Roberts	Crystal Ballroom Salon D
General Science	167	Making the best use of TI technology in a science classroom	Rob Reniewicki	Crystal Ballroom Salon E
Geometry	158	Exploring the geometry construction menu	Martin Sanchez	Grand Ballroom Salon 10
Geometry	174	Using the TI-Nspire™ CX CAS handheld to clarify the understanding of geometric transformations	Zalman Usiskin	Canary 2
Middle Grades Math	149	Strategies to Nspire: engaging struggling learners with technology	Melissa Sigley	Denver
Middle Grades Math	150	Statistics in middle school and the TI-Nspire™ CX technology	Murney Bell	Chicago
Precalculus	146	Want to be a millionaire?	Patricia Carroll Bowling	New York
Precalculus	160	Modeling nature's trigonometric nature on the TI-84 Plus graphing calculator	Lynda Ferneyhough	Grand Ballroom Salon 12
Programming	170	Programming with the TI-Nspire™ handheld	Jared Despain	Crystal Ballroom Salon L
Statistics	364	We can do the <i>nae nae</i> in mathematics too!	Kathleen McKinley	North Tower: Aruba
Statistics	365	Should I foul him or not? Using TI-Nspire™ technology to teach conditional and compound probability	Tracy Wingert	North Tower: Bahamas
Saturday 8 a.m. – 5:30 p.m.				
Statistics	B	Statistics symposium: 10 really cool things to teach in statistics	Gail Burrill	North Tower: Harbor Beach
Saturday 9:45 – 10:45 a.m.				
Administrator	192	The legacy of leadership: a generation of leaders	Stephanie Ogden	Grand Ballroom Salon 6
Administrator	205	Putting 21st-century technology in students' hands: the Clover Park School District story	Maria Flores	Crystal Ballroom Salon K
Algebra I	177	Building a foundation for AP* Statistics in your algebra courses	Thomas Mariano	Washington
Algebra I	178	The TI-84 Plus family of graphing calculators supports CCSS for Mathematical Content and Mathematical Practice	Rebecca Caison	Tampa
Algebra I	193	The power of the PublishView™ feature	Judith Olson	Grand Ballroom Salon 9
Algebra I	211	Overview of the TI-30Xa scientific calculator	Beth Smith	Canary 3
Algebra II	180	The TI-Nspire™ CX technology and Pythagorean triples	Denny St. John	San Francisco
Algebra II	181	The power of visualization in CCSS algebra II	Howard Stern	San Antonio

Sessions by Time

Subject	No.	Title	Presenter	Room
Saturday 9:45 – 10:45 a.m.				
Assessment	196	Using the TI-Nspire™ CX Navigator™ system to assess student understanding	Ron Albright	Grand Ballroom Salon 12
Biology	201	Biology in the real world	Louise Chapman	Crystal Ballroom Salon C
Calculus	190	TI-84 Plus CE graphing calculator in an applied calculus course	Donald Griffin	Grand Ballroom Salon 4
Calculus	195	Series-ly? Exploring series using the TI-Nspire™ CX technology	Patricia Brooks	Grand Ballroom Salon 11
Calculus	210	AP* Calculus, the new frameworks and technology	Vicki Carter	Canary 2
Chemistry	202	Identifying weak acids by pKA with TI-Nspire™ handheld technology	Roxane Ohl	Crystal Ballroom Salon D
Computer Algebra System (CAS)	206	Tackling the new SAT* with the TI-Nspire™ CX CAS handheld	Michael Buescher	Crystal Ballroom Salon L
Computer Algebra System (CAS)	207	Dynamic dissections: building persuasive polygon area formulas via manipulation and CAS (Computer Algebra System)	Jon Davis	Crystal Ballroom Salon M
Computer Algebra System (CAS)	209	The remarkable computer algebra system: defined, applied and refined	Candace Terry	Canary 1
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	199	Math and science look at the thermometer	Randy Reese	Crystal Ballroom Salon A
Elementary Math	208	Get rid of the number <i>blues</i> with the TI-15 Explorer™ elementary calculator	Marsha Burkholder	Crystal Ballroom Salon N
Formative Assessment	194	Easy first steps to using the TI-Nspire™ CX Navigator™ system	Della Highman	Grand Ballroom Salon 10
Formative Assessment	197	Made you look! Analyzing student work with formative assessment	Monique Chatman	Grand Ballroom Salon 13
General Math	187	Inspire the process: using TI technology to enhance NCTM process standards	Maggie Mary	Grand Ballroom Salon 1
General Math	188	Let them teach (and understand more): Using TI-Nspire™ CX technology for student-designed lessons	Daniel Wilkie	Grand Ballroom Salon 2
General Math	189	Modeling in three acts with the TI-84 Plus graphing calculator	Linda Griffith	Grand Ballroom Salon 3
General Science	203	What does the new TI-84 Plus CE graphing calculator offer to my science classroom?	Jacklyn Bonneau	Crystal Ballroom Salon E
Geometry	183	History and anatomy of the golden ratio	Scott Washburn	New Orleans
Geometry	184	Why are air-conditioning ducts not triangular? Find out using the TI-84 Plus Silver Edition graphing calculator!	Jim Swick	Los Angeles
Middle Grades Math	185	Art in the coordinate plane using the TI-Nspire™ CX technology or TI-84 Plus graphing calculator (a new twist on turkey hands)	Naomi Kokason	Denver
Middle Grades Math	186	Performance tasks in the middle school math classroom using the TI-Nspire™ CX technology	Rachael Smilowitz	Chicago
Middle Grades Math	191	Using the TI-Nspire™ App for iPad® to understand pi	Ann Wheeler	Grand Ballroom Salon 5

Sessions by Time

FEBRUARY 27
Saturday

Subject **No. Title** **Presenter** **Room**

Saturday 9:45 – 10:45 a.m.

Precalculus	200	The TI-84 Plus graphing calculator in secondary math, in preparation for a successful AP [®] Calculus	Fan Disher	Crystal Ballroom Salon B
Programming	212	Ten minutes of code	John Hanna	Canary 4
Statistics	366	Time after time: analyzing quantitative data	Vonda Morris	North Tower: Aruba
Statistics	367	Graphical representation for the statistical interpretation of data	Rafael R. Canales Pastrana	North Tower: Bahamas
Statistics	381	Adventures in flipping a math class	Joel Evans	North Tower: Grand Cayman

Saturday 11 a.m. – noon

Administrator	241	Transforming the teaching and learning of mathematics in the digital age	John Staley	Crystal Ballroom Salon K
Algebra I	213	Flipping the TI-84 Plus graphing calculator classroom: what did we learn?	Andrea Mika	Washington
Algebra I	214	Starfish family transformed with the new TI-84 Plus CE graphing calculator	Barbara Ward	Tampa
Algebra I	215	Stroop test data collection will have you seeing colors	Andrew Benzing	St. Louis
Algebra I	218	Implementing CCSSM statistics standards into algebra	Todd Sikora	New York
Algebra I	229	Modeling activities using TI-Nspire™ CX technology for exploring representations and behaviors of linear functions	Melfried Olson	Grand Ballroom Salon 9
Algebra II	216	It's all about the base: exploring exponential and logarithmic functions with the TI-Nspire™ CX Navigator™ system	Katelyn Long	San Francisco
Algebra II	217	Exploring STEM activities with the TI-Nspire™ CX handhelds the and Calculator-Based Ranger 2™ (CBR2) motion sensor	Peggy McVay	San Antonio
Assessment	232	Assessment uses in a TI-Nspire™ CX Navigator™ system classroom	Tara Whittington	Grand Ballroom Salon 12
Calculus	231	Calculus and algebra class activities with the TI-Nspire™ CX handheld	Bozenna Graham	Grand Ballroom Salon 11
Computer Algebra System (CAS)	243	CAS/The computer algebra system: first steps	Tom Fox	Crystal Ballroom Salon M
Computer Algebra System (CAS)	245	Exploring sequences and series with CAS (Computer Algebra System)	Irina Lyublinskaya	Canary 1
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	235	Application of right-triangle trigonometry in forensics	Christy Barton	Crystal Ballroom Salon A
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	236	Bats, moths and motion detectors: connecting math and echolocation	Luke Stultz	Crystal Ballroom Salon B
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	238	STEM-based activities for the classroom using the TI-Nspire™ CX technology	Cassie Whitecotton	Crystal Ballroom Salon D

Subject	No.	Title	Presenter	Room
Saturday 11 a.m. – noon				
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	246	Use zombies to make STEM become undead!	Jeff Lukens	Canary 2
Elementary Math	244	Counting on real numbers with the TI-15 Explorer™ elementary calculator to have a few surprises	Lindsay Gold	Crystal Ballroom Salon N
Formative Assessment	233	Moving toward a paperless classroom with the TI-Nspire™ CX Navigator™ system	Dan Kennedy	Grand Ballroom Salon 13
General Interest	226	Confessions of a former nonuser	Andrew Amstutz	Grand Ballroom Salon 4
General Interest	234	<i>When will we ever use this?</i> Some answers with TI-84 Plus graphing calculator applications	Scott Oliver	Grand Ballroom Salon 14
General Math	224	What's new with the TI-Nspire™ CX technology?	Elena Smirnova	Grand Ballroom Salon 2
General Math	225	Question everything!	Ellen Browne	Grand Ballroom Salon 3
General Math	230	An introductory tour of TI-Nspire™ CX Teacher Software	Ron Kennedy	Grand Ballroom Salon 10
General Math	247	Essential elements of effective mathematics programs	Matt Larson	Canary 3
General Science	239	Science and math look at the thermometer	Tom Cauffield	Crystal Ballroom Salon E
Geometry	219	Guess who's back, back again, TI-84 Plus calculators are back, tell a friend	Levi Straight	New Orleans
Geometry	220	The happiest geometry place on earth	Pamela Baker	Los Angeles
Middle Grades Math	221	Using applications, motion detectors and movie clips in the middle grades	Miguel Garcia	Denver
Middle Grades Math	228	Building Concepts: ratios and proportional relationships	Daniel Ilaria	Grand Ballroom Salon 6
Middle Grades Science	240	Astronomical relationships: graphical models of the solar system with the TI-Nspire™ CX technology	Christopher Broomall	Crystal Ballroom Salon F
Physics	237	Sliders and Jacobi's law: TI-Nspire™ CX handheld	Ian Galloway	Crystal Ballroom Salon C
Precalculus	227	Flipping through transformations: Using TI-Nspire™ App for iPad® and/or the TI-84 Plus C Silver Edition graphing calculator	Holly Siebert	Grand Ballroom Salon 5
Precalculus	248	TI-Nspire™ CX CAS handheld explorations to prepare students for precalculus	Ken Collins	Canary 4
Programming	242	Teaching adolescent and young adult students TI Basic programming with the TI-84 Plus Silver Edition graphing calculator	John Isaacs	Crystal Ballroom Salon L
Statistics	368	Drawing connections with probability distributions	Todd Steckler	North Tower: Aruba
Statistics	369	Teaching statistics with technology	Cory Cloud	North Tower: Bahamas

Sessions by Time

FEBRUARY 27
Saturday

Subject	No.	Title	Presenter	Room
Saturday 1 – 2 p.m.				
Administrator	277	My team is excited ... now what?	Scott Gaddis	Crystal Ballroom Salon K
Algebra I	249	Ease into exponential functions with the TI-Nspire™ CX technology or the TI-84 Plus graphing calculator	Kathy Traylor	Washington
Algebra I	250	Exploring transformations with the TI-84 Plus CE graphing calculator	Richard Parr	Tampa
Algebra I	251	Transformations in the coordinate plane with the TI-84 Plus family of graphing calculators	Margaret Bambrick	St. Louis
Algebra I	254	It's all downhill from here – explorations with negative slope	Don Slater	New York
Algebra I	265	Algebra concepts through modeling: making a curriculum dynamic for students and teachers through the TI-Nspire™ PublishView™ feature	Fay Zenigami	Grand Ballroom Salon 9
Algebra I	283	Overview of the TI-30Xa scientific calculator	Beth Smith	Canary 3
Algebra II	252	Teaching the Florida standards in algebra II using the TI-Nspire™ CX CAS handheld	Brendan Kelly	San Francisco
Algebra II	253	Using the TI-84 Plus Silver Edition graphing calculator to teach transformations from algebra through calculus	Ronn Blaha	San Antonio
Algebra II	264	Selfie modeling	Travis Bower	Grand Ballroom Salon 6
Assessment	268	Creating finance portfolios using the TI-84 Plus graphing calculator	Melinda Wilder	Grand Ballroom Salon 12
Biology	273	Connecting STEM with environmental literacy using the TI-Nspire™ CX technology	Jessica Kohout	Crystal Ballroom Salon C
Calculus	267	Discovering the hidden gems of calculus with help from the TI-Nspire™ CX CAS handheld	Kurt Kleinberg	Grand Ballroom Salon 11
Computer Algebra System (CAS)	281	Using TI-Nspire™ CAS technology to address Common Core Math Practices in algebra and precalculus	Wade Ellis	Canary 1
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	272	Fall, bounce, repeat? Creating collaborative lessons between science and math using the TI-Nspire™ CX Navigator™ system	David Willis	Crystal Ballroom Salon B
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	274	Using STEM projects and TI technology to motivate students and assess understanding	Lynda Vincent	Crystal Ballroom Salon D
Formative Assessment	269	Nspiring formative assessments in the secondary math classroom	Sherri Phegley	Grand Ballroom Salon 13

Subject	No.	Title	Presenter	Room
Saturday 1 – 2 p.m.				
General Interest	262	Not Nspired? No worries	Pam Metcalf	Grand Ballroom Salon 4
General Interest	263	xTreme calculus: Why should seniors have all the fun?	Vidal Olivares	Grand Ballroom Salon 5
General Interest	270	Using the TI-Nspire™ CX Navigator™ system to connect with your classroom	Sarah Schmitz	Grand Ballroom Salon 14
General Interest	282	TeacherTube® classrooms inspired!	Jason Smith	Canary 2
General Math	260	Using the TI-Nspire™ CX technology to explore infinity within finite and using functions to study fractals	Amin Lalani	Grand Ballroom Salon 2
General Math	261	Flipping your TI-Nspire™ classroom	Valerie Hudson	Grand Ballroom Salon 3
General Science	275	Water quality at the pond	Toni Riebe	Crystal Ballroom Salon E
Geometry	255	Geometry mini lessons for the TI-Nspire™ CX handhelds and the TI-Nspire™ CX Navigator™ system	Bridget Streeb	New Orleans
Geometry	256	Using the TI-Nspire™ CX technology to explore, investigate and discover in the geometry classroom	Damion Beth	Los Angeles
Middle Grades Math	257	What is the quadrant count ratio and why would I want to teach it?	Susan Howe	Denver
Middle Grades Math	258	Data and statistics for the TI-84 Plus CE graphing calculator	Pam Littleton	Chicago
Middle Grades Science	276	Blubber evolution using the TI-Nspire™ CX handheld	Maureen Mack	Crystal Ballroom Salon F
Precalculus	284	Using a problem-solving activity to develop mathematical habits of mind	Lynn Adsit	Canary 4
Programming	278	Achieving a shared goal with AP* Computer Science A and AP* Computer Science principles	Lien Diaz	Crystal Ballroom Salon L
Statistics	370	Epidemiology and statistics using the TI-84 Plus CE graphing calculator	Corina Srygley	North Tower: Aruba
Statistics	371	Statistics activities for middle school students using the TI-84 Plus C Silver Edition graphing calculator	Gail Gallitano	North Tower: Bahamas
Statistics	383	Mathematical Modelling with TI – using TI-84 family and TI-Nspire™ technology	Melissa Hourigan	North Tower: Grand Cayman
Saturday 2:15 – 3:45 p.m.				
Administrator	313	Full implementation of the TI-Nspire™ CX Navigator™ system in over 150 secondary math classrooms in one district	Ronda Davis	Crystal Ballroom Salon K
Algebra I	285	Inside the algebra of the completely redesigned SAT*	Jeff McCalla	Washington
Algebra I	286	For the love of Fido and more – modeling math on the TI-84 Plus graphing calculator	David Reeves	Tampa
Algebra I	287	Using the TI-84 Plus Silver Edition graphing calculator for state assessments	Kathy Hale	St. Louis
Algebra I	290	The TI-84 Plus graphing calculator: a concept development tool in the secondary classroom	Andi Parr	New York

Sessions by Time

FEBRUARY 27
Saturday

Subject	No.	Title	Presenter	Room
Saturday 2:15 – 3:45 p.m.				
Algebra II	288	Real valued functions of complex numbers	Pat Mara	San Francisco
Algebra II	289	Solving systems of equations using the TI-84 Plus CE graphing calculator	Debbie Sheridan	San Antonio
Assessment	305	Nspiring open tasks	Paul Alves	Grand Ballroom Salon 13
Authoring	301	Sliders, conditionals and math boxes, oh my!	Mark Arguijo	Grand Ballroom Salon 9
Authoring	312	Programs – a powerful tool for authoring interactive documents with the TI-Nspire™ CX handheld	Marc Garneau	Crystal Ballroom Salon F
Calculus	303	Take it to the limit ... one more time: calculus activities for the TI-Nspire™ CX handhelds/TI-84 Plus graphing calculator family	Anthony Record	Grand Ballroom Salon 11
Computer Algebra System (CAS)	300	CAS to the rescue: Using the TI-Nspire™ CAS App for iPad® in RTI2	Tina Alhashimi	Grand Ballroom Salon 6
Computer Algebra System (CAS)	315	Don't teach what students can discover	William Caroscio	Crystal Ballroom Salon M
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	302	Keep calm and STEM on!	Deborah Rice	Grand Ballroom Salon 10
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	307	Teaching for understanding, teaching for transfer	Tami Plein	Crystal Ballroom Salon A
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	309	Great STEM in math and science classrooms using the TI-Nspire™ CX technology	Amy Monahan	Crystal Ballroom Salon C
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	310	STEM with the TI-Nspire™ CX technology – enhancing both the math and science classroom	Michael Smith	Crystal Ballroom Salon D
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	311	Mathematical modeling and TI-Nspire™ technology	Caroline Lee	Crystal Ballroom Salon E
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	318	STEM made easy: bringing math and science together through technology	Karlheinz Haas	Canary 3

Sessions by Time

Subject	No.	Title	Presenter	Room
Saturday 2:15 – 3:45 p.m.				
Elementary Math	316	Calculating reminders with children's literature, the TI-15 Explorer™ elementary calculator and manipulatives	Tammy L. Jones	Crystal Ballroom Salon N
General Interest	306	Setup, installation and first-day usage of the TI-Nspire™ CX Navigator™ system	Daryl Ewry	Grand Ballroom Salon 14
General Math	295	What do I do the first day I use TI-Nspire™ technology with my students?	Jeremy Zelkowski	Grand Ballroom Salon 1
General Math	296	How the brain learns mathematics – ideas from David Sousa	Stephanie MacKay	Grand Ballroom Salon 2
Geometry	292	I have identified a sequence of rigid motions – now what?	Stephen West	Los Angeles
Geometry	317	#SlowMath: Using TI-Nspire™ technology to look for meaning before the procedure	Jennifer Wilson	Canary 2
Middle Grades Math	291	Teaching with TI-Nspire™ CX handhelds and TI-Nspire™ CX Navigator™ technology: Can you guess my age?	Victoria Soto	New Orleans
Middle Grades Math	293	Mastering math concepts	Doug Smeltz	Denver
Middle Grades Math	294	Dynamic middle school math with the TI-Nspire™ CX technology	Maria Benzon	Chicago
Middle Grades Math	297	Building Concepts: change the way you teach	Chris Longueira	Grand Ballroom Salon 3
Middle Grades Math	298	Exploring statistics and probability in middle grades with the TI-84 Plus CE graphing calculator	Betty Gasque	Grand Ballroom Salon 4
Physics	299	It's all relative on the TI-Nspire™ App for iPad®	Marsha Guntharp	Grand Ballroom Salon 5
Precalculus	308	A TI-84 Plus graphing calculator project: a creative test alternative for precalculus	Stuart Moskowitz	Crystal Ballroom Salon B
Precalculus	319	Visualizing complex numbers with the TI-Nspire™ CX CAS technology	Gregory Foley	Canary 4
Programming	314	Super Lua users group (SLUG fest)	Stephen Arnold	Crystal Ballroom Salon L
Statistics	372	Digging deeper into random variables and sampling distributions	Lisa Conzemius	North Tower: Aruba
Statistics	373	Sports statistics – using the TI-Nspire™ CX handhelds to connect math and athletics	Rachael Gorsuch	North Tower: Bahamas
Trigonometry	304	Connecting with polar curves	Dennis Wilson	Grand Ballroom Salon 12

Sessions by Time

FEBRUARY 27
Saturday

Subject	No.	Title	Presenter	Room
Saturday 4 – 5:30 p.m.				
Algebra I	321	Modeling: implement the Common Core Math Practices and make real-world connections	Nancy Johnson	Tampa
Algebra I	322	Use your TI-84 Plus graphing calculator to answer which comes first – rate of change or slope?	Mike Lutz	St. Louis
Algebra II	323	Graphing calculator art using the TI-Nspire™ CX handhelds	Sarada Toomey	San Francisco
Algebra II	336	Face-to-face + online classes = successful students	Antoinette Kidwell	Grand Ballroom Salon 9
Assessment	340	Raise ACT* scores with TI-84 Plus Silver Edition graphing calculators	Michael Dorsey	Grand Ballroom Salon 13
Assessment	341	Using learning styles to become better teachers	George Selitto	Grand Ballroom Salon 14
Authoring	349	Bluetooth® Low Energy and Lua: create your own STEM scripts	Stephen Arnold	Crystal Ballroom Salon L
Calculus	325	Initial conditions? The collaborative work to get close to mathematics concepts using the TI-Nspire™ CX Navigator™ system	Cesar Lozano Diaz	New York
Calculus	337	Exploring volumes by cross-sections in calculus	Juan Manuel Gonzalez	Grand Ballroom Salon 10
Calculus	338	Project-based lessons in AP* Calculus	Michael Long	Grand Ballroom Salon 11
Computer Algebra System (CAS)	350	Using the CAS in the sciences to promote the use of CAS in mathematics	David Young	Crystal Ballroom Salon M
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	342	Using the TI-84 Plus graphing calculator to tackle real problems with space garbage	Debbie Poss	Crystal Ballroom Salon A
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	343	Reaching the breaking point: using spaghetti and the TI-Nspire™ CX handheld to understand inverse variation	Alice Fisher	Crystal Ballroom Salon B
Formative Assessment	326	Beyond multiple choice: formative assessment for Common Core	Isaiah Carpenter	New Orleans
General Interest	331	Using the TI-Nspire™ CX technology to reach hard-to-reach students	Jack Witt	Grand Ballroom Salon 2
General Interest	332	Those precalculus polynomials are applicable in higher mathematics!	Jay Schiffman	Grand Ballroom Salon 3

Sessions by Time

Subject	No.	Title	Presenter	Room
Saturday 4 – 5:30 p.m.				
General Interest	333	Best-kept secrets of the TI-84 Plus family of graphing calculators	Deb Nutt	Grand Ballroom Salon 4
General Interest	352	Seven for seven	Kevin Spry	Canary 1
General Math	320	Pre-service teacher roundtable: the conference in review	Maria Benzon	Washington
Middle Grades Math	328	Flipping over transformations with the TI-84 Plus graphing calculator	Melissa Jackson	Denver
Middle Grades Math	329	Growing an understanding of proportional reasoning and algebraic thinking using the TI-84 Plus CE graphing calculator	Gloria Beswick	Chicago
Precalculus	344	The fitting room: finding a model of best fit with the TI-84 Plus Silver Edition graphing calculator	Doris Zinck	Crystal Ballroom Salon C
Statistics	374	Probability simulation on the TI-Nspire™ CX handhelds	David Kohmetscher	North Tower: Aruba
Trigonometry	339	My TI-84 Plus Silver Edition graphing calculator can predict the weather?	Bill Kujawa	Grand Ballroom Salon 12

Sunday Sessions by Time

Come
Learn
Go
Teach

#T3IC

Sessions by Time

Subject	No.	Title	Presenter	Room
Sunday 8:30 – 10 a.m.				
Calculus	C	AP* Calculus from those in the know	Tom Dick	Grand Ballroom 1/2/3
Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	E	STEM Education: The mISSion imaginaTion Design Challenge	Curtis Brown	Grand Ballroom 9/10/11
General Interest	D	Leading learning in deeply digital mathematics classrooms: tools to inform powerful decision-making	Valerie Mills	Grand Ballroom 4/5/6
Middle Grades Math	F	Visualizing ratios and proportional relationships: implications for our classrooms	Michelle Rinehart	Grand Ballroom 12/13/14

Friday Session Details

Come
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Go
Teach

#T3IC

1 Vertical teams: teaching rates in grade 9 through AP* STEM courses

Serena Magrogan, smagrogan@collegeboard.org, @ssmagrogan, The College Board, Duluth, Georgia, United States

This session will focus on the topic of rates, which is a topic that permeates almost every Advanced Placement (AP*) science, technology, engineering and math (STEM) course. The purpose of this session is to demonstrate how to scaffold the instructional strategies and formative assessments of rates from grade 9 through AP* STEM courses. In this session, STEM teachers will develop effective pathways for students to increase understanding and build upon their skills from one grade level to the next, and see how to use vertical teaming techniques for many different topics.

10:15 - 11:45 a.m.

Washington

Seats: 40

90-minute lecture/demonstration

Advanced

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

2 What the APP is that?

TI-84 Plus Silver Edition graphing calculator

Gina Allred, s2allred@randolph.k12.nc.us, @ginaallred, Eastern Randolph High School, Ramseur, North Carolina, United States

The TI-84 Plus graphing calculator has a lot to offer within the APP key. Come and experience the power of software applications and explore algebra I, rational rampage, inequality graphing and more (as time allows).

10:15 - 11:45 a.m.

Tampa

Seats: 40

90-minute hands-on

Beginner

Algebra I

3 To feel the algebra, you've got to move it!

TI-84 Plus CE graphing calculator

Lisa Suarez, fractalsuar@yahoo.com, @fractalsuar, Cleveland State University, Columbia Station, Ohio, United States

Co-presenter: Bill Stiggers

Learn how to incorporate the Calculator-Based Ranger™ (CBR) motion sensor to teach algebra concepts. The CBR™ device is an invaluable tool to help students experience algebra through their own motions while also helping them remember what they learned. See how students can feel rates of change and model functions created using their own motion and the CBR™ device.

10:15 - 11:45 a.m.

St. Louis

Seats: 40

90-minute hands-on

Beginner

Algebra I

4 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, Archdiocese of Philadelphia, Philadelphia, Pennsylvania, United States

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

10:15 - 11:45 a.m.

San Francisco

Seats: 40

90-minute hands-on

Intermediate

Algebra II

5 Discover the magic: Common Core statistics for algebra II

TI-Nspire™ CX Navigator™ system

Sharon Cichocki, scichock@buffalo.edu, Orchard Park, New York, United States

Statistics has become an integral topic in the Common Core State Standards curriculum. This session is for teachers who will be teaching Algebra II Module 4: Statistics. We will review and explore concepts taught in the module using TI-Nspire™ technology. We will distribute student-ready handouts for classroom use.

10:15 - 11:45 a.m.

San Antonio

Seats: 40

90-minute hands-on

Beginner

Algebra II

6 Implementing project-based learning with the TI-Nspire™ technology

TI-Nspire™ CX Navigator™ system

Sherri Abel, sherriabel1014@gmail.com, @sherriabel1014, Greenville County Schools, Greenville, South Carolina, United States

Learn how to actively engage students in project-based learning activities using the TI-Nspire™ CX technology. Participants will be involved in working through the beginning of several problems while learning the art of questioning to stimulate student thinking. Come prepared to have fun!

10:15 - 11:45 a.m.

New York

Seats: 40

90-minute hands-on

Intermediate

Algebra I

7 Transformational geometry: innovative, interactive ways to learn and teach with handheld and/or software

TI-Nspire™ CX handheld

Tom Reardon, tom@tomreardon.com, @tomreardon3, Youngstown State University, Poland, Ohio, United States

Immediate interactive investigations (I3) will have students discovering geometric concepts in less than 15 seconds on handhelds, computer software or the iPad® mobile digital device. Encourage students to use the play-investigate-explore-discover (PIED) approach while performing colorful and dynamic reflections, translations, rotations and dilations. All activities we do – including student worksheets and teacher notes – will be made available to participants. Common Core State Standards- and Texas Essential Knowledge and Skills-aligned for grades 8-11. We will include compass and straight-edge activities along with self-assessments.

10:15 - 11:45 a.m.

New Orleans

Seats: 50

90-minute hands-on

Beginner

Geometry

8 Discover the definition of the parabola using TI-Nspire™ technology as seen through a CCSS classroom

TI-Nspire™ CX handheld

Stan Pappo, spappo@optonline.net, Port Jefferson Station, New York, United States

Participants will discover the definition of the parabola using TI-Nspire™ CX handhelds in four ways: visually, geometrically, algebraically and through data collection. The setting will be a Common Core State Standards classroom and the discussion will include Common Core State Standards for Mathematical Practice and reaching students with a deeper understanding of mathematics.

10:15 - 11:45 a.m.

Los Angeles

Seats: 50

90-minute hands-on

Intermediate

Geometry

9 Math – It’s a small world after all!

TI-84 Plus CE graphing calculator

Jane Damaske, jdamaske@comcast.net, @tijane53, St. Joseph, Michigan, United States

Co-presenter: Judy Hicks

It’s a world of standards, a world of tears, it’s a world of TEKS and a world of fears, there’s so much that we share that it’s time we’re aware, it’s a small world after all! Experience TI-84 Plus CE activities that start at the middle grade level and can be increased in mathematical intensity each year through all of high school. Vertical alignment across grade levels – who knew? You will walk away with several activities to use in your classroom ranging from pre-algebra through algebra II.

10:15 - 11:45 a.m.

Denver

Seats: 40

90-minute hands-on

Beginner

Middle Grades Math

10 Teaching statistics with student-created data

TI-84 Plus CE graphing calculator

David Scott, dscott@udel.edu, @davidleonscott, Wilmington, Delaware, United States

This workshop will illustrate problems that students can investigate using experimental probabilities created using simulations.

10:15 - 11:45 a.m.

Chicago

Seats: 40

90-minute hands-on

Beginner

Middle Grades Math

11 Improving math success with the TI-Nspire™ App for iPad®

TI-Nspire™ CX Navigator™ system

Tom Steinke, thomas.steinke@ocsb.ca, @tomsteinke, Mother Teresa High School, Nepean, Canada

Our school in Ottawa, Ontario, Canada, has seen unprecedented improvement in math learning over the past eight years. Come learn about the role TI-Nspire™ handhelds and the TI-Nspire™ App for iPad® have played in our continuing success. We will share our story of how we systematically transformed our culture of student and teacher learning, along with our vision of where we will be headed in the future.

10:15 - 11:45 a.m.

Grand Ballroom Salon 1

Seats: 60

90-minute lecture/demonstration

Beginner

General Math

12 From variables to functions: problem-solving using your TI-30XS MultiView™ scientific calculator

TI-30XS MultiView™ scientific calculator

Miriam Santana, mesntm@rit.edu, Rochester Institute of Technology National Technical Institute for the Deaf, Rochester, New York, United States

This presentation focuses on developing proficiency with the TI-30XS MultiView™ scientific calculator through problem-solving. Participants will practice manipulating variables, constants, formulas and functions by using the calculator’s memory and data editor and by using list formulas.

10:15 - 11:45 a.m.

Grand Ballroom Salon 2

Seats: 60

90-minute hands-on

Beginner

General Math

13 The top 10 overlooked features in the TI-84 Plus family of graphing calculators

TI-84 Plus CE graphing calculator

John LaMaster, lamaster@ipfw.edu, @johnlamaster, Indiana University – Purdue University Fort Wayne, Fort Wayne, Indiana, United States

Co-presenter: Margo Lynn Mankus

Are you still discovering TI-84 Plus and TI-84 Plus CE graphing calculator features that make your eyes light up? Whether you are a TI-84 Plus veteran or picking up the TI-84 Plus CE graphing calculator for the first time, there are many valuable, often-overlooked features that can enhance instruction and increase student understanding. This session will highlight TI-SmartView™ CE emulator for the TI-84 Family of calculators to lead your class in active learning and mathematical modeling.

10:15 - 11:45 a.m.

Grand Ballroom Salon 3

Seats: 60

90-minute hands-on

Beginner

General Interest

15 Love your TI-Nspire™ App for iPad® but miss your TI-Nspire™ Navigator™ system? We'll fix that!

TI-Nspire™ CAS App for iPad®

Allan Bellman, abellman@olemiss.edu, @abellman17, University of Mississippi, University, Mississippi, United States

The TI-Nspire™ CAS App for iPad® is a great tool to dynamically experience mathematics. And the TI-Nspire™ Navigator™ system is a great tool to assess, share and build classroom discussion. In this session, you'll learn how to use free applications, Google Docs™/Forms and free cloud storage to add much of the functionality of the TI-Nspire™ Navigator™ system you've loved with your handhelds to your iPad® mobile digital device classroom. Experience an algebra lesson and learn how to regain some of the file delivery and collection, screen capturing, comparing and sharing, and assessment tools you've loved with the TI-Navigator™ classroom learning system. You don't need an iPad® mobile digital device to learn, but bring it if you have one to play along.

10:15 - 11:45 a.m.

Grand Ballroom Salon 5

Seats: 80

90-minute hands-on

Intermediate

General Interest

16 Nspire'd fractions

TI-Nspire™ App for iPad®

Marsha Burkholder, teamburk@yahoo.com, Columbus City Schools, Columbus, Ohio, United States

Co-presenter: Chris Ruda

In this hands-on session, you will use the TI-Nspire™ App for iPad® to explore the concepts of fractions. See how students in grades 3-5 use the application to help develop their fractional knowledge.

10:15 - 11:45 a.m.

Grand Ballroom Salon 6

Seats: 80

90-minute hands-on

Beginner

Elementary Math

17 Introduction to Lua scripting on the TI-Nspire™ handheld

TI-Nspire™ software

Bryson Perry, brysonperryjr@msn.com, @MrPerryMath, Lafayette High School, Lexington, Kentucky, United States

Come learn Lua scripting from the ground up on TI-Nspire™ software. We will start with *Hello World* and build our programs up from there.

10:15 - 11:45 a.m.

Grand Ballroom Salon 9

Seats: 30

90-minute hands-on

Intermediate

Authoring

18 Creating a Word document instruction sheet

TI-Nspire™ software

Ray Fox, rayisfox@gmail.com, @krayfox, Mount Juliet, Tennessee, United States

Co-presenter: Johnny Ashurst

Participants will learn how to create teacher and student instruction documents. Topics include how to install TI-Nspire™ fonts and create a Word document template with appropriate headers, footers and key information. On one side are instructions and keystrokes, with screenshots on the other. We will use screenshots, including a time delay for submenus. Participants will learn how to format screenshots and position them. The instructions will be saved as both .doc and .pdf. We will create a sharable link, shorten it, and share with Gmail and Twitter.

10:15 - 11:45 a.m.

Grand Ballroom Salon 10

Seats: 30

90-minute hands-on

Advanced

Authoring

19 Conceptual development of calculus in an active learning classroom using the TI-Nspire™ CX CAS technology

TI-Nspire™ CX Navigator™ system

Douglas Lapp, lapp1da@cmich.edu, @DougLappCMU, Central Michigan University, Mount Pleasant, Michigan, United States

We will use a discussion of common misconceptions of calculus to motivate the use of the computer algebra system (CAS) and linked representations. We will also examine the role of student discourse as participants get experience with technology similar to that of an active learning classroom. This course places emphasis on exploration that allows students to make conjectures inductively, then using the CAS to prove them by algebra-fying the same geometric constructions manipulated in the inductive phase of the exploration. We will discuss connections to the Common Core State Standards, with particular attention to Common Core State Standards for Mathematical Practice.

10:15 - 11:45 a.m.

Grand Ballroom Salon 11

Seats: 60

90-minute hands-on

Intermediate

Calculus

20 Nspiring labs that aren't just goofy

TI-Nspire™ CX Navigator™ system

Linda Antinone, linda.antinone@sbcglobal.net, Paschal High School/Fort Worth Independent School District, Fort Worth, Texas, United States

Data collection in precalculus and physics will be the emphasis of this engaging session of Goofy labs with Minnie effort and Mickey fun. Use motion detector and force sensors to investigate sinusoidal and parametric relationships. These science, technology, engineering and math activities help students make connections between mathematics and physics.

10:15 - 11:45 a.m.

Grand Ballroom Salon 12

Seats: 60

90-minute hands-on

Intermediate

Precalculus

21 Fab four on the TI-84 Plus graphing calculator

TI-84 Plus CE graphing calculator

Kim Schjelderup, kim.schjelderup@mercerislandschools.org, @APCalcTchr, Mercer Island High School, Mercer Island, Washington, United States

Co-presenter: Lynn Adsit

Get up to speed on the TI-84 Plus CE graphing calculator as we investigate polar, parametric, sequences and function capabilities through engaging explorative activities. Participants will leave with ready-to-use handouts and technology directions to use with their students.

10:15 - 11:45 a.m.

Grand Ballroom Salon 13

Seats: 60

90-minute hands-on

Intermediate

Precalculus

22 Scrutinizing functions with the TI-84 Plus CE graphing calculator*TI-84 Plus CE graphing calculator**Ann Schlemper, aschlemper@ccis.edu, @amschlemper, Columbia College, Columbia, Missouri, United States**Co-presenter: Michelle Goetz*

You can use the TI-84 Plus CE graphing calculator to thoroughly investigate the nuances of the graph of a function. The enhanced features of this newest calculator – which includes color graphing, but also other important capabilities such as the ability to graph vertical lines – make often difficult-to-comprehend concepts more easily understood. The mathematics will focus on polynomial functions (turning points/extrema, intercepts, end behavior, increasing/decreasing); rational functions (domain, intercepts, end behavior, increasing/decreasing, horizontal, vertical and slant asymptotes); trigonometric functions (amplitude, period, asymptotes, intercepts, increasing/decreasing); and exponential and logarithmic functions (domain and range, intercepts, end behavior, increasing/decreasing, asymptotes).

10:15 - 11:45 a.m.**Grand Ballroom Salon 14***Seats: 60**90-minute hands-on**Beginner**Algebra II***23 TI-Nspire™ CX technology and the mathematical and scientific process***TI-Nspire™ CX Navigator™ system**Delbra Robinson, delstar@comcast.net, Chesterfield Township, Michigan, United States*

Participants will learn how TI-Nspire™ technology can facilitate conducting a mathematics/science fair in their school or classroom. We will use Vernier® probes with TI-Nspire™ CX handhelds to investigate and explore real-world variables (independent/dependent) and real-time data collection. This session will offer a hands-on and fun approach to applying specific Common Core State Standards for Mathematical Content and Mathematical Practice while discovering the benefits to student participation in local, regional and national science and mathematics fairs. This session focuses on formative assessment and ways to use TI-Nspire™ technology to facilitate teaching and learning by offering qualitative feedback to highlight the details of content and performance.

10:15 - 11:45 a.m.**Crystal Ballroom Salon A***Seats: 40**90-minute hands-on**Intermediate**Connecting Science and Math/Science, Technology, Engineering and Math (STEM)***24 Statistics and environmental science – linking science and data analysis using real-world data***TI-Nspire™ CX Navigator™ system**Cindy Chesley, cchesl1@volusia.k12.fl.us, Mainland High School, Daytona Beach, Florida, United States**Co-presenter: Louise Chapman*

Statistics and science teachers will learn to link data collection of real-world data and how to analyze the data. If you are not collecting real-world environmental science data and determining if it is statistically significant and useful, you need to come to this workshop. The focus will be to teach statistics teachers to use and collect data with new modes of collection and to teach science teachers how statistics collected with the TI-Nspire™ CX Navigator™ system can help them analyze real-world data.

10:15 - 11:45 a.m.**Crystal Ballroom Salon B***Seats: 40**90-minute hands-on**Beginner**Connecting Science and Math/Science, Technology, Engineering and Math (STEM)***25 Adventures in thermochemistry – using the TI-Nspire™ technology to see energy***TI-Nspire™ CX Navigator™ system**Ray Lesniewski, chemguy65@yahoo.com, Jones College Prep High School, Chicago, Illinois, United States*

What do bricks, magnets, rope, effervescent tablets and rubber bands have in common? They will all be used to help students understand the somewhat abstract field of thermochemistry. You will use the TI-Nspire™ CX Navigator™ system to engage in practical strategies to help students see energy transformations. We will focus on four main areas: using graphical representations to understand physical and chemical processes; studying the heat and work flow of a simple chemical system using technology; understanding the true nature of entropy using probability mathematics; and engaging in a practical example to understand the relationships between enthalpy, entropy and free energy.

10:15 - 11:45 a.m.**Crystal Ballroom Salon C***Seats: 40**90-minute hands-on**Beginner**Chemistry*

26 What's in my water with the TI-Nspire™ CX handheld

TI-Nspire™ CX handheld

Judy Day, judy_day@mac.com, @judybday, North Carolina State University, Raleigh, North Carolina, United States

Co-presenter: Louise Chapman

Learn how to use the TI-Nspire™ Lab Cradle to do water-quality analysis. We will analyze fresh and brackish water using the optical dissolved oxygen, pH, conductivity, salinity, temperature, and turbidity sensors. Learn hints on how to get the best results from the sensors for water-quality studies.

10:15 - 11:45 a.m.

Crystal Ballroom Salon D

Seats: 40

90-minute hands-on

Beginner

General Science

27 Breathe in, breathe out. Relax. Breathe in, breathe out.

TI-Nspire™ CX Navigator™ system

Stacy Thibodeaux, svthibodeaux@lpssonline.com, Lafayette Parish School System, Lafayette, Louisiana, United States

Co-presenter: Jeff Lukens

Integrating the sciences with mathematics is what science, technology, engineering and math teaching and learning is all about. When students collect their own data, they are much more likely to take an interest in analyzing that data. In this session, we will use TI technology and Vernier® data-collection tools in an activity that truly bridges the narrowing gap between science and math. The session is completely hands-on, standards-based and student-centered.

10:15 - 11:45 a.m.

Crystal Ballroom Salon E

Seats: 40

90-minute hands-on

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

28 Making connections in trig with TI-Nspire™ CX technology

TI-Nspire™ CX handheld

Scott Knapp, sknapp@glenbrook225.org, Glenbrook North High School, Northbrook, Illinois, United States

Come view TI-Nspire™ CX handheld activities that have helped trigonometry students make deeper connections between lessons and units. Topics include the unit circle, trigonometric function graphing, inverse trigonometric functions, solving trigonometry equations, the law of cosines and polar graphing. Leave the conference with calculator activities and demonstrations that are classroom-ready and proven to enrich student learning.

10:15 - 11:45 a.m.

Crystal Ballroom Salon F

Seats: 40

90-minute hands-on

Beginner

Trigonometry

29 Choosing the right device or application: conversations in the professional learning community

Susan Horowitz, SUSAN_HOROWITZ@ALLENISD.ORG, @swhorowitz, Ford Middle School/Allen Independent School District, Allen, Texas, United States

Creating a digital learning environment is more than providing a technology device to students. Teachers and administrators need to focus on the instructional goals and match those with the appropriate device or application. This can seem like a daunting task in 2016. Find out how one team of administrators lead conversations within professional learning communities to ensure that good instruction is the focus of a lesson and that the technology tool engages students and deepens learning.

10:15 - 11:45 a.m.

Crystal Ballroom Salon K

Seats: 40

90-minute lecture/demonstration

Intermediate

Administrator

30 Teaching beginner programming concepts with the TI-84 Plus CE graphing calculator

TI-84 Plus CE graphing calculator

Christopher Mitchell, christopher@cemetech.net, Cemeteach, New York, New York, United States

This session will introduce you to TI Basic for TI-84 Plus C Silver Edition/TI-84 Plus CE graphing calculators, and will motivate the pedagogical value of encouraging your students to pursue graphing calculator programming. You'll learn the important programming commands and write a few programs of your own. The lesson will be grounded in material from the book *Programming the TI-83 Plus/TI-84 Plus*, with sample lesson plans that you can use to teach programming as a primary topic or curriculum enrichment.

10:15 - 11:45 a.m.

Crystal Ballroom Salon L

Seats: 40

90-minute hands-on

Intermediate

Programming

31 A CAS primer

TI-Nspire™ CX Navigator™ system

Fred Ferneyhough, dybydx@me.com, Plympton-Wyoming, Canada

If you've ever wondered what the computer algebra system (CAS) can do for your students, this will be a good introductory session. We will explore CAS features, review the proper use of CAS in your classroom, and discuss some of the advantages and dangers to using a CAS.

10:15 - 11:45 a.m.

Crystal Ballroom Salon M

Seats: 40

90-minute hands-on

Beginner

Computer Algebra System (CAS)

32 Using the TI-Nspire™ CX CAS handhelds and the TI-Nspire™ CX Navigator™ system to transform a traditional algebra I course

TI-Nspire™ CX Navigator™ system

Debbie Dicker, ddicker@dist113.org, Highland Park High School, Highland Park, Illinois, United States

Co-presenter: Robin Gapinski

Learn how we used TI-Nspire™ technology to implement Common Core State Standards and transform a traditional algebra curriculum into a more meaningful and richer classroom environment for all learners. This session will provide teaching techniques, activities and formative assessments using the TI-Nspire™ CX Navigator™ system for immediate implementation in your own classroom. Participants will not only learn about our journey to enrich our algebra I course, but will also receive activities and assessments to take back to their classroom.

10:15 - 11:45 a.m.

Crystal Ballroom Salon N

Seats: 40

90-minute hands-on

Beginner

Computer Algebra System (CAS)

33 Questioning and other ways of eliciting evidence

Dylan Wiliam, dylanwiliam@mac.com, @dylanwiliam, Starke, Florida, United States

Questioning and other related techniques for eliciting evidence about student achievement are a staple in classrooms all over the world. But in most classrooms, the teacher performs the greater part of the *intellectual heavy lifting*, with students delegated to a supporting role. In this session, participants will learn about a range of classroom techniques to improve questioning, including how to create and capitalize on more *teachable moments* and the defining characteristics of effective diagnostic questions.

10:15 - 11:45 a.m.

Canary 1/2

Seats: 160

90-minute lecture/demonstration

Beginner

Formative Assessment

34 Getting started with the TI-84 Plus CE graphing calculator

TI-84 Plus CE graphing calculator

Jane Barnard, janebarnard@charter.net, Milledgeville, Georgia, United States

New to TI-84 Plus CE graphing calculator technology? Get the most out of your T³™ International Conference experience by attending this hands-on session for beginners. The technology, with familiar TI-84 Plus graphing calculator functionality, brings mathematics/science to life with a vibrant backlit color screen, MathPrint™ functionality, photos/images, real-time data collection and multiple representations on a single screen. Plan to explore patterns, graph functions/relationships, model/graph data, write simple programs, and learn how to engage students. Get the most out of the experience by bringing your personal TI-84 Plus CE graphing calculator with you. We will share programs.

10:15 - 11:45 a.m.

Canary 3

Seats: 80

90-minute hands-on

Beginner

Algebra I

35 Getting started with the TI-Nspire™ CX handheld

TI-Nspire™ CX handheld

Betty Gasque, bgasque@aol.com, Charleston, South Carolina, United States

New to TI-Nspire™ technology? Get the most out of your T³™ International Conference experience by attending this hands-on session for beginners. Bring your TI-Nspire™ CX handheld with you, or borrow a loaner for this informative, lively session.

10:15 - 11:45 a.m.

Canary 4

Seats: 80

90-minute hands-on

Beginner

General Interest

356 Using TI-84 Plus graphing calculator simulations to determine if a die is fair

TI-84 Plus CE graphing calculator

Gloria Barrett, barrett@ncssm.edu, Pittsboro, North Carolina, United States

Participants will roll dice – first by hand and then by using the TI-84 Plus CE graphing calculator ProbSim application – to gather data from fair dice that will help them determine whether a chipped die is fair. We will use calculator lists to calculate the chi-square statistic, and pool participant results to get a simulated p-value. This activity is suitable for introducing the chi-square statistic, simulating a chi-squared distribution, and developing understanding of the chi-square goodness of fit test.

10:15 - 11:45 a.m.

North Tower: Aruba

Seats: 36

90-minute hands-on

Intermediate

Statistics

357 Get psyched about data!

TI-84 Plus CE graphing calculator

Ricci Underwood, joecoolmath@gmail.com, Advanced Technologies Academy, Las Vegas, Nevada, United States

When are we ever going to use this? Easy ... when conducting cognitive psychology experiments! We'll collect univariate and bivariate data using two trials that will make your students rethink the way they think. Take those results and use them to create graphs, calculate measures of central tendency, and analyze and support hypothesis. These activities can easily be adapted for any level from middle school to Advanced Placement statistics. We'll use the TI-84 Plus CE graphing calculator to make modeling meaningful with our results.

10:15 - 11:45 a.m.

North Tower: Bahamas

Seats: 36

90-minute hands-on

Beginner

Statistics

376 Dr. Sheldon Cooper presents Fun with Flags

TI-Nspire™ CX Navigator™ system

Josh Mize, jmize@hcpss.org, @JMize1618, Howard County Public Schools, Glenelg, Maryland, United States

On a popular network comedy, Dr. Sheldon Cooper creates a Web video presentation he calls *Fun with Flags*. Come see how much fun flags really can be, as we use colors of flags and TI-Nspire™ technology to investigate basic probabilities.

10:15 - 11:45 a.m.

North Tower: Grand Cayman

Seats: 36

90-minute hands-on

Beginner

Statistics

36 Who, me? I am going to teach statistics?

TI-Nspire™ CX handheld

Robin Levine-Wissing, bichons_98028@yahoo.com, Buckeye, Arizona, United States

This session is for algebra I and II teachers who will be teaching statistics content from the Common Core State Standards for Mathematics (CCSSM). We will use TI-Nspire™ technology as well as hands-on activities to better understand one- and two-variable statistics using the standards from CCSSM.

12:45 - 2:15 p.m.

Washington

Seats: 40

90-minute lecture/demonstration

Beginner

Algebra I

37 Asking questions that count and listening to the answers

TI-Nspire™ CX handheld

Gail Burrill, burrill@msu.edu, Michigan State University, Hales Corners, Wisconsin, United States

Too often, the questions we ask students might not really get to what they're thinking about – and how often do we really listen to the answers? Research has some things to say about listening to our students, which we will consider in the context of developing important algebraic concepts within and across the grades. We will use TI's Building Concepts in mathematics activities related to expressions, equations and functions on the TI-Nspire™ CX handheld to launch the discussion.

12:45 - 2:15 p.m.

Tampa

Seats: 40

90-minute lecture/demonstration

Beginner

Algebra I

38 Step it up and break it down: dynamic differentiation to support student-centered learning

TI-Nspire™ CX handheld

Kristy Curran, kcurran@bcps.org, Baltimore County Public Schools, Baltimore, Maryland, United States

Co-presenter: Amy Parlette

Participants will engage in student-centered learning strategies for mathematics classrooms, with dual exceptionalities defined as students who have instructional needs met with advanced academics, individualized education plans or 504 plans. Participants will use the TI-84 Plus graphing calculator and TI-Nspire™ CX handheld to explore activities related to algebra I and geometry content. Participants will leave the session with a variety of strategies ready to implement in their classrooms.

12:45 - 2:15 p.m.

St. Louis

Seats: 40

90-minute hands-on

Beginner

Algebra I

39 Residuals have a story to tell

TI-84 Plus CE graphing calculator

Kara Leaman, kara.leaman11@gmail.com, @idomath, Unity High School, Tolono, Illinois, United States

Co-presenter: Ann Schlemper

Is the *line of best fit* really the best model? By what measure do you judge this? Have you heard of residuals, regression and correlation coefficients, but you're not really sure what it all means? You probably aren't alone; many mathematics teachers today find these statistical concepts *aren't what we learned in school*. Understand how these concepts build and connect while exploring data with the TI-84 Plus CE graphing calculator.

12:45 - 2:15 p.m.

San Francisco

Seats: 40

90-minute hands-on

Beginner

Algebra II

41 I've turned it on, now what? Getting started with the TI-Nspire™ CX handheld

TI-Nspire™ CX handheld

Sherry Everding, severding@corjesu.org, @sherryeverding, Cor Jesu Academy, St. Louis, Missouri, United States

This session introduces new users to the world of TI-Nspire™ CX handheld technology. Come explore from the beginning and participate in activities that 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.

12:45 - 2:15 p.m.

New York

Seats: 50

90-minute hands-on

Beginner

Algebra I

44 Using the TI-84 Plus graphing calculator's color technology to meet the Common Core Math Practices

TI-84 Plus CE graphing calculator

Karen Campe, skcampe@optonline.net, New Canaan, Connecticut, United States

Use the new TI-84 Plus CE graphing calculator (and your old favorites from the TI-83/TI-84 Plus family of graphing calculators) to meet the Common Core State Standards for Mathematical Practice. Get strategies on how to best leverage your classroom technology to guide students toward deeper mathematical understanding. We will use multiple representations to explore linear, quadratic and polynomial functions and investigate real-context optimization problems with geometric models. Go home with classroom-ready activities that promote higher-level thinking and support the Common Core Math Practices.

12:45 - 2:15 p.m.

Denver

Seats: 40

90-minute hands-on

Beginner

Algebra II

45 Graphing one-variable data using the TI-84 Plus family of graphing calculators

TI-84 Plus CE graphing calculator

Valerie Roebuck, ticoach.valerieroebuck@gmail.com, Houston, Texas, United States

Help your students engage in the learning process using relevant data, graphing that data on the TI-84 Plus CE graphing calculator. Students can quickly discover measures of central tendency and measures of variability as they explore box plots and histograms. Leave with a ready-made lesson to take back and use with your students.

12:45 - 2:15 p.m.

Chicago

Seats: 40

90-minute hands-on

Beginner

Middle Grades Math

46 Getting by in a dual classroom

TI-Nspire™ CX handheld

Matt Almon, matt.almon_ti@yahoo.com, @Matt_D_Almon, Joliet West High School, Joliet, Illinois, United States

Co-presenter: Jaime Burbano

Want to start using the TI-Nspire™ CX handheld, but your students have TI-84 Plus calculators? Spend some time with me looking at a few activities that can be done in what I like to call a *dual* classroom. We will fill this 90 minutes with as many activities as we can, looking at what works well with both the TI-Nspire™ CX handheld and TI-84 Plus family of graphing calculators.

12:45 - 2:15 p.m.

Grand Ballroom Salon 1

Seats: 60

90-minute hands-on

Beginner

General Math

47 Have a magical day ... graphing

TI-84 Plus CE graphing calculator

Holly Terrill, hsmholly@yahoo.com, @HollyTerrill, Vernon Township School District, Glenwood, New Jersey, United States

This presentation will use the TI-84 Plus CE graphing calculator to show how to graph different types of graphs. Participants will learn how to graph absolute value, scatter plots, box and whisker, parabolas and more. We will place special emphasis on special needs students in general population classrooms. All levels of learners welcome.

12:45 - 2:15 p.m.

Grand Ballroom Salon 2

Seats: 60

90-minute hands-on

Intermediate

General Math

48 Every student involved – the TI-Nspire™ CX Navigator™ system can make it happen

TI-Nspire™ CX Navigator™ system

Ray Barton, bartonr7@comcast.net, @ray_barton7, Olympus High School, Salt Lake City, Utah, United States

Imagine a classroom where every student actively participates in Common Core State Standards. In this classroom, teachers can quickly see what students are thinking and make strategic decisions that promote meaningful discussion and powerful learning opportunities. The TI-Nspire™ CX Navigator™ system can make this happen. In this hands-on session, we will use the TI-Nspire™ CX Navigator™ system and examples from algebra, geometry and precalculus to see how it all comes together.

12:45 - 2:15 p.m.

Grand Ballroom Salon 3

Seats: 60

90-minute hands-on

Beginner

General Interest

49 Using the TI-Nspire™ CX Navigator™ system for face-to-face time in a flipped class

TI-Nspire™ CX Navigator™ system

Sharon Bruce, sbrucetced@comcast.net, Colorado Springs Christian School, Colorado Springs, Colorado, United States

The TI-Nspire™ handhelds and TI-Nspire™ CX Navigator™ system has become an integral part of my face-to-face time with high school math students in a flipped classroom setting. Experience firsthand how I use formative assessment, discovery activities and problem-solving to deepen student understanding and address student misconceptions.

12:45 - 2:15 p.m.

Grand Ballroom Salon 4

Seats: 60

90-minute hands-on

Intermediate

Formative Assessment

50 Getting started with the TI-Nspire™ App for iPad® and more

TI-Nspire™ CAS App for iPad®

Jerry Scherer, jerry.scherer@outlook.com, Thornhill, Ontario, Canada

In this hands-on session, we will introduce participants to the basic features of the six applications of the TI-Nspire™ App for iPad® using the latest operating system. These interactive tutorial documents are ideal for classroom use. We will provide all instructions and keystroke sequences on the iPad® mobile digital device. Participants will also receive Getting Started documents for TI-Nspire™ handhelds and guidance on authoring TI-Nspire™ documents.

12:45 - 2:15 p.m.

Grand Ballroom Salon 5

Seats: 80

90-minute lecture/demonstration

Intermediate

General Interest

51 Integrating the TI-Nspire™ App for iPad® into a rich task

TI-Nspire™ CAS App for iPad®

Art Mabbott, art@mabbott.org, Scholars Online, Woodinville, Washington, United States

Join us as we explore a rich trigonometric task using the TI-Nspire™ CAS App for iPad®. Bring your own iPad® mobile digital device or we will loan you one. Very little TI-Nspire™ experience is needed. Some proficiency with an iPad® mobile digital device and trigonometry is helpful but not required. We will work through all of this together – from reading the problem, identifying the appropriate function and correct parameters, and solving the problem. We will discuss why using technology can help students find the correct answer.

12:45 - 2:15 p.m.

Grand Ballroom Salon 6

Seats: 80

90-minute hands-on

Intermediate

Precalculus

52 Color your world with Lua programming

TI-Nspire™ software

Becky Byer, bbyer31415@aim.com, @bbyer31415, Kelly Walsh High School, Casper, Wyoming, United States

Co-presenter: Becky Underwood

Have you ever looked at a TI-Nspire™ document and thought, *That looks like an applet?* Chances are it was coded in Lua. Learn Lua programming from the initial *Hello World* to drawing graphics and writing if-then statements. We'll start with the basics, then provide you with resources to help you further your programming adventure.

12:45 - 2:15 p.m.

Grand Ballroom Salon 9

Seats: 30

90-minute hands-on

Beginner

Programming

53 Dancing with Lua: using Lua to enhance constructions made on a TI-Nspire™ graphs page

TI-Nspire™ software

Adam Pennell, pennella@greensboro.edu, @apennell1, Greensboro College, High Point, North Carolina, United States

This interactive session is designed to show you how to choreograph the dance between Lua and the TI-Nspire™ Graphs page. Using guided experimentation, we will use Lua to animate objects on a Graphs page, and we will create buttons in Lua that will interact with that same page. We will discuss how these interactions between Lua and a Graphs page can enhance the lessons that we prepare for our classrooms. No Lua programming experience is necessary. This session can only be done using a laptop with TI-Nspire™ Student Software or TI-Nspire™ Teacher Software installed.

12:45 - 2:15 p.m.

Grand Ballroom Salon 10

Seats: 30

90-minute hands-on

Intermediate

Authoring

54 Engaging students with the TI-84 Plus and TI-84 Plus C Silver Edition graphing calculators and revised apps

TI-84 Plus CE graphing calculator

Linda Apicella, lapicella@aol.com, Waterbury Public Schools, Waterbury, Connecticut, United States

See how the TI-84 Plus CE and TI-84 Plus C Silver Edition graphing calculators' revised applications engage students in exploration and discovery. We will demonstrate several applications (inequalities, transformations, Cabri) and share algebra I and II collection activities.

12:45 - 2:15 p.m.

Grand Ballroom Salon 11

Seats: 60

90-minute hands-on

Beginner

Algebra I

55 Walking, cooling and hearing mathematics

TI-84 Plus CE graphing calculator

Marta Rosas, mrosas@intermetro.edu, Interamerican University of Puerto Rico, Metropolitan Campus, San Juan, Puerto Rico

Co-presenter: Rosa Tirado

Participants will use the Calculator-Based Ranger™ motion sensor/Calculator-Based Laboratory™ data collection device to collect data in the TI-84 Plus CE graphing calculator by walking, cooling and playing a musical note. After graphing the data, they will apply their knowledge of quadratic, exponential, sine and cosine functions to numerically and algebraically construct the mathematical model that best fits.

12:45 - 2:15 p.m.

Grand Ballroom Salon 12

Seats: 60

90-minute hands-on

Intermediate

Precalculus

56 Make connections to Common Core mathematical modeling in high school algebra and precalculus with the TI-Nspire™ CX CAS technology

TI-Nspire™ CX Navigator™ system

Ronald Armontrout, ronarmontrout@gmail.com, Oxford, Maine, United States

Using the TI-Nspire™ CX CAS handhelds, participants will explore mathematical models appropriate for all levels of algebra and precalculus. Iterating linear functions creates discrete dynamic systems that model real-world phenomena. The real applications investigated will include drug models and financial mathematics. Using the Internet as a research tool, we will discuss assessment and student writing projects. The topics in this workshop are appropriate for integration into existing algebra courses, for a course in discrete mathematics, or for integration into existing integrated curricula at the high school level.

12:45 - 2:15 p.m.

Grand Ballroom Salon 13

Seats: 60

90-minute hands-on

Intermediate

Precalculus

57 Common Core composition – activities, assessment and the TI-Nspire™ technology

TI-Nspire™ CX Navigator™ system

Veronica Carlson, veronica.carlson@guhsdaz.org, @Veronica_math, Moon Valley High School, Phoenix, Arizona, United States

Co-presenter: Kim Thomas

How do you practice for algebra end-of-course performance? The TI-Nspire™ CX handhelds makes it possible for students to learn, practice and explore mathematics, enabling them to perform successfully at the end of the course.

12:45 - 2:15 p.m.

Grand Ballroom Salon 14

Seats: 60

90-minute hands-on

Beginner

Assessment

58 Measuring wind chill with the TI-Nspire™ CX CAS handheld

TI-Nspire™ CX CAS handheld

Scott Keltner, scottkeltner@eudoraschools.org, @ScottKeltner, Eudora High School, Eudora, Kansas, United States

This session aims to use the TI-Nspire™ CX handheld, TI-Nspire™ CX Lab Cradle, and Vernier® temperature probe and anemometer to put a digit to the frigid! Participants will explore wind-chill calculations using the DataQuest™, Lists and Spreadsheet, and Data and Statistics pages to depict the wind-chill tendencies students often feel but struggle to quantify formally. Participants will see a brief program on the TI-84 Plus graphing calculator that calculates wind chill for a single data point, but most emphasis will be on using the TI-Nspire™ CX handheld document for this activity.

12:45 - 2:15 p.m.

Crystal Ballroom Salon A

Seats: 40

90-minute lecture/demonstration

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

59 Blasting off into STEM*TI-Nspire™ CX Navigator™ system**Todd Morstein, morsteint@sd5.k12.mt.us, Glacier High School, Kalispell, Montana, United States**Co-presenter: Tonya Reed-Patterson*

In this session, participants will design and construct a rocket using the concepts of math, physics and chemistry. They will determine the correct amount of fuel and fin structure to maximize the height of their rocket and then compete for the greatest rocket height. Rocket success will be based on height, ratio of fuel and mass of the rocket. The math concepts covered are ratios, right-triangle trigonometry, force and projectile motion. The physics concepts include projectile motion, force and velocity. The chemistry concepts involved are chemical reactions, molar ratios and gas laws.

12:45 - 2:15 p.m.**Crystal Ballroom Salon B***Seats: 40**90-minute hands-on**Beginner*

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

60 Slopes and areas, velocity and distance: analysis with the TI-84 Plus graphing calculator and Calculator-Based Ranger™ motion sensor*TI-84 Plus CE graphing calculator**Gregory Williams, gbwilliams4@juno.com4, Norfolk, Virginia, United States**Co-presenter: Chris Ruda*

We will collect motion data with the Calculator-Based Ranger™ motion sensor and TI-84 Plus CE graphing calculator, analyze it numerous ways, and connect the math of slopes and areas to the physics of velocity and distance.

12:45 - 2:15 p.m.**Crystal Ballroom Salon C***Seats: 40**90-minute hands-on**Beginner*

Physics

61 Titrating zombies: combatting the zombie plague with TI-Nspire™ technology*TI-Nspire™ CX Navigator™ system**Mike Cimino, mikecimino@outlook.com, @mike__cimino, Heritage Middle School/Volusia County Schools, Deltona, Florida, United States*

Looking for a safe, exciting and easy way to teach the components of pH in your middle grades science classroom? Look no further than this zombified workshop! Through the use of TI-Nspire™ technology and a pH probe, we will complete a science, technology, engineering and math-focused hands-on lesson where you will create a serum to combat a zombie plague. Participants will make critical choices when engineering their serum in an attempt to return a zombified body to homeostasis.

12:45 - 2:15 p.m.**Crystal Ballroom Salon D***Seats: 40**90-minute hands-on**Beginner*

Middle Grades Science

62 Roots (what we have to plant for STEM to take hold)*TI-Nspire™ CX Navigator™ system**Doug Roberts, droberts@wideopenwest.com, @dougrobortsohio, Hilliard, Ohio, United States*

We will do some hands-on activities that will allow teachers and students to get some practice using the TI-Nspire™ CX handhelds and probes. Doing some pre-science, technology, engineering and math (STEM) activities will allow teachers and students to get a better feeling on how a STEM activity will work in the math or science classroom.

12:45 - 2:15 p.m.**Crystal Ballroom Salon E***Seats: 40**90-minute hands-on**Beginner*

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

63 Introductory TI-84 Plus CE graphing calculator menu programming*TI-84 Plus CE graphing calculator**Mark von Rosenberg, mvonrosenberg@nchstx.org, Archdiocese of Fort Worth, Fort Worth, Texas, United States*

Are you new to the programming feature in the TI-84 Plus CE graphing calculator? If so, this is the hands-on workshop for you. Using your own TI-84 Plus CE graphing calculator, you will be taken from start to finish in a complete mathematics-themed menu program. It will be immediately usable in your classroom for you to teach to your students. This is a bring-your-own-device session (but, calculators will be provided if you need one). We will provide a detailed handout containing programs with algebra I and geometry-themed applications ranging from the middle grades through high school.

12:45 - 2:15 p.m.**Crystal Ballroom Salon F***Seats: 40**90-minute hands-on**Beginner*

Algebra I

64 Nspiration in math and science instruction

TI-Nspire™ CX Navigator™ system

Missy Huffty, vevans@lufkinisd.org, @missyhuffty, Lufkin Independent School District, Lufkin, Texas, United States

Co-presenter: Erin Kay

Come learn how Lufkin High School integrated the TI-Nspire™ CX Navigator™ system into mathematics and science classroom instruction. This session will focus on how the campus launched the TI-Nspire™ CX Navigator™ system initiative from ninth-grade algebra I to precalculus and chemistry to physics. We will demonstrate how we have now moved into a connecting science and math model through teacher-developed integrated lessons, sharing successes and challenges along the way.

12:45 - 2:15 p.m.

Crystal Ballroom Salon K

Seats: 40

90-minute hands-on

Intermediate

Administrator

65 Coding and computer science with the TI-84 Plus family of graphing calculators

TI-84 Plus CE graphing calculator

Toni Norrell, norrelltoni@gmail.com, @ToniNorrell, Robstown, Texas, United States

Co-presenter: Michelle Rinehart

Interested in using technology that your students already have (like the TI-84 Plus family of graphing calculators) to incorporate coding and computer science into your math class? It's easier than you might think! Come explore how to get started – with examples, resources and hands-on coding time. No programming or computer science background required.

12:45 - 2:15 p.m.

Crystal Ballroom Salon L

Seats: 40

90-minute hands-on

Beginner

Programming

66 Getting answers isn't enough – let students know if the answers are correct with the TI-Nspire™ CX CAS technology

TI-Nspire™ CX Navigator™ system

Patsy Fagan, patsy@pfagan.com, @fagan_patsy, Des Moines, Iowa, United States

What if your students could check their own understanding and find their errors? Students can become independent learners when given the tools to check their own homework and assessment answers. This hands-on session will give hints and strategies to accomplish this using TI-Nspire™ CX CAS handhelds and the TI-Nspire™ Navigator™ system.

12:45 - 2:15 p.m.

Crystal Ballroom Salon M

Seats: 40

90-minute hands-on

Beginner

Computer Algebra System (CAS)

67 Tips with literal equations – the CAS in algebra

TI-Nspire™ CX Navigator™ system

Sean Bird, covenantbird@gmail.com, @covenantbird, Covenant Christian High School, Indianapolis, Indiana, United States

Help students tackle literal equations or formulas to help them get excited about mathematics and the world around them. Use the TI-Nspire™ CX CAS handhelds to encourage exploring and student confidence. Also learn about limitations and new capabilities. See how to leverage the computer algebra system built into the TI-Nspire™ CX Navigator™ system. Ready-to-use activities including adding variables and the distributive property, along with other resources, are available on <https://sites.google.com/site/tinspiregroup/cas>.

12:45 - 2:15 p.m.

Crystal Ballroom Salon N

Seats: 40

90-minute hands-on

Intermediate

Computer Algebra System (CAS)

68 Leadership for teacher learning

Dylan Wiliam, dylanwiliam@mac.com, @dylanwiliam, Starke, Florida, United States

There is now substantial evidence of a *knowing/doing* gap in education. The problem is not that we do not know how to improve schools. The problem is implementing what we know works in more classrooms. That is why approaches based on sharing best practices have been relatively ineffective. Teachers do not lack knowledge; rather they lack support putting into practice changes in their classrooms, which requires time. This is a particular problem in education because almost everything that teachers do in classrooms benefits their students. The essence of effective teacher leadership is giving teachers time to do even better things.

12:45 - 2:15 p.m.

Canary 1/2

Seats: 160

90-minute lecture/demonstration

Beginner

Administrator

69 A CAS at my school? How can I get such a program set up?

TI-Nspire™ CX Navigator™ system

Ray Klein, rklein9019@aol.com, Glen Ellyn, Illinois, United States

Many teachers have heard about the computer algebra system (CAS) and feel that such an approach might help their students learn more mathematics. But there are logistical problems when one tries to start using such an approach at their particular school. We faced this problem at Glenbard West High School in Glen Ellyn, Illinois, a few years ago. Come and see how we went about solving this problem, and how we got our CAS program started in algebra I and continued it throughout the rest of our curriculum. We will use the TI-Nspire™ CX CAS technology for demonstration purposes.

12:45 - 2:15 p.m.

Canary 3

Seats: 80

90-minute hands-on

Beginner

Computer Algebra System (CAS)

358 Introducing binomial probabilities

TI-Nspire™ CX Navigator™ system

Andy Blevins, andy_levins@catawbaschools.net, Fred T. Foard High School, Newton, North Carolina, United States

Participants will complete an activity that teachers can use to introduce binomial probabilities in a secondary classroom of students with no knowledge of binomial distributions. It begins with drawing cards from a deck, collecting data and compiling class data. We will develop the properties of a binomial distribution and present several questions. A follow-up leads to the development of the binomial formula. You can use either a TI-Nspire™ handheld or TI-84 Plus graphing calculator for binomial calculations; however, we will use a TI-Nspire™ CX Navigator™ system for quick compiling of participant data.

12:45 - 2:15 p.m.

North Tower: Aruba

Seats: 36

90-minute hands-on

Beginner

Statistics

359 AP* Statistics simulation activities performed on the TI-84 Plus graphing calculator and TI-Nspire™ CX handheld

TI-Nspire™ CX handheld

Chris True, chrtrue123@gmail.com, University of Nebraska – Lincoln, Lincoln, Nebraska, United States

In this session, we will perform simulations on the TI-84 Plus graphing calculator to demonstrate essential Advanced Placement statistics concepts and *translate* these activities to the TI-Nspire™ CX handheld. This session is designed for those who are comfortable with the TI-84 Plus graphing calculator and want to learn how to perform similar tasks on the TI-Nspire™ CX handheld.

12:45 - 2:15 p.m.

North Tower: Bahamas

Seats: 36

90-minute hands-on

Intermediate

Statistics

377 Statistics from beginning to end

TI-84 Plus CE graphing calculator

Diane Broberg, dbroberg@allendalecolumbia.org, Allendale Columbia School, Rochester, New York, United States

This session presents hands-on activities beginning with one-variable statistics and graphing. We will continue through two-variable statistics and end with normal distributions and hypothesis testing. Use the TI-84 Plus CE graphing calculator to better understand and visualize the concepts. Leave with activities that you can use in class next week.

12:45 - 2:15 p.m.

North Tower: Grand Cayman

Seats: 36

90-minute hands-on

Intermediate

Statistics

A Grant writing for STEM initiatives

Doris Teague, doristeague540@gmail.com, @doristeague540, McKinney, Texas, United States

Co-presenter: Louise Chapman, Clara Tolbert

This half-day session offers participants a hands-on approach to developing a science, technology, engineering and math-related grant framework. Designed for beginning or intermediate grant writers, attendees will develop various sections of a grant proposal selected from our lists or use a proposal of their own. Working with the presenters and in small groups, this session will provide a good starting point for a proposal. You can then use additional writing time at home to fine-tune goals, outcomes and program options; develop partnerships and program evaluations; and create sustainable initiatives at the classroom and district level.

1 - 5 p.m.

North Tower: Harbor Beach

Seats: 100

240 minute lecture/demonstration

Beginner

General Interest

71 Using great tasks and the TI-Nspire™ CX technology to teach statistics topics in algebra

TI-Nspire™ CX Navigator™ system

Kyle Atkin, atkin4@bak.rr.com, @4kyleatkin, Kern High School District, Bakersfield, California, United States

Common Core State Standards allow us to orchestrate the world where statistics and algebra intersect. Come and participate in great tasks that include univariate and bivariate statistics topics that are ideal for an algebra course. Experience how the TI-Nspire™ CX handhelds and TI-Nspire™ CX Navigator™ system can facilitate student learning.

2:30 - 3:30 p.m.

Washington

Seats: 40

60-minute hands-on

Beginner

Algebra I

72 Math – It's a small world after all!

TI-Nspire™ CX Navigator™ system

Judy Hicks, judy.hicks.ti@comcast.net, @judyhicks58, Arvada, Colorado, United States

Co-presenter: Jane Damaske

It's a world of standards, a world of tears, it's a world of TEKS and a world of fears, there's so much that we share that it's time we're aware, it's a small world after all! Experience TI-Nspire™ activities that start at the middle grade level and can be increased in mathematical intensity each year through all of high school. Vertical alignment across grade levels – who knew? You will walk away with several TI-Nspire™ activities to use in your classroom ranging from pre-algebra through algebra II.

2:30 - 3:30 p.m.

Tampa

Seats: 40

60-minute hands-on

Beginner

Algebra I

73 How the TI-Nspire™ CX technology changed the way I teach

TI-Nspire™ CX Navigator™ system

Sandra Hocutt, ticoach.sandrahocu@att.net, @sandrahocutt, Powderly, Texas, United States

The power of TI-Nspire™ technology opens doors for all students to have a voice in classroom discussion without fear of reprisal. The dynamic features of this interactive system allow students to ask why, how and what if, and then to explore for themselves. This leads to meaningful discussions and understanding of mathematical concepts. Participants will leave with ready-to-use materials for their classrooms. They will experience the power of the TI-Nspire™ CX technology.

2:30 - 3:30 p.m.

St. Louis

Seats: 40

60-minute hands-on

Beginner

Algebra I

74 An Nspired look at transformations in algebra

TI-Nspire™ technology

Landy Godbold, l.godbold@comap.com, Smyrna, Georgia, United States

Many activities help students infer what multiplications and additions to *inside* functions accomplish. This session won't do any of that. Instead, we will crawl under the hood of transformations and discover what makes them tick. Now you'll have an answer when students say, *I see what it's doing, but why does it work like that?* We will use our feet (for real!) along with TI-Nspire™ technology for spreadsheets, 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.

2:30 - 3:30 p.m.

San Francisco

Seats: 40

60-minute lecture/demonstration

Beginner

Algebra II

75 Back to basics with the TI-84 Plus graphing calculator to enhance mathematics

TI-84 Plus CE graphing calculator

Joyce Lee, jymlee@aol.com, George Washington Carver High School, Columbus, Georgia, United States

We will use TI-84 Plus CE graphing calculator technology to explore algebraic topics to stimulate mathematics interest and promote achievement.

2:30 - 3:30 p.m.

San Antonio

Seats: 40

60-minute hands-on

Beginner

Algebra II

76 It's in color? The Cabri™ Jr. app is in color on the TI-84 Plus CE graphing calculator

TI-84 Plus CE graphing calculator

Dona McSpadden, makingsmilesetc@gmail.com, Fayetteville School District – Agee-Lierly Life Preparation Services, Fayetteville, Arkansas, United States

Learn how each of your geometry or algebra I students can use the Cabri™ Jr. application on their TI-84 Plus CE graphing calculator. Come for an introduction to the application, key functions, pulldown menus, tools, classroom examples and capabilities such as constructing figures that retain their properties. Expect an increase in student involvement and reinforce mathematics vocabulary using the Cabri™ Jr. application. Leave with classroom-ready activities.

2:30 - 3:30 p.m.

New York

Seats: 50

60-minute hands-on

Beginner

Geometry

77 Conjectures and proofs with TI-Nspire™ technology related to stars created with parabolas

TI-Nspire™ technology

Jean-Jacques Dahan, jjdahan@wanadoo.fr, IRES of Toulouse, Toulouse, France

We will start from the Graphs and Geometry application of TI-Nspire™ technology to create several stars. These stars are delimited by parabolas from two points (their focus and vertex belonging to triangles or polygons). We will then investigate the areas of these stars using the geometry tools exclusively to get some nice conjectures. At last, we will try to get the formal proofs of some of these conjectures in a note page. This presentation will provide teachers ideas about how to use TI-Nspire™ technology in their classrooms at very different levels.

2:30 - 3:30 p.m.

New Orleans

Seats: 50

60-minute lecture/demonstration

Intermediate

Geometry

78 The mathematics of car symbols using the TI-Nspire™ CX technology

TI-Nspire™ CX Navigator™ system

Raymond Rozen, rar@rmit.edu.au, Royal Melbourne Institute of Technology University, Melbourne, Victoria, Australia

In this hands-on session, we will investigate several activities using the TI-Nspire™ CX CAS handhelds. We will insert images, draw graphs, and investigate and analyze the mathematical properties of several car symbols. This is achieved by using geometry and graphing functions and relations on restricted domains, and using reflections of functions. We will demonstrate these tasks using the latest version of TI-Nspire™ technology, so bring along your handheld, laptop or iPad® mobile digital device to see how to include these colorful demonstrations in your classroom.

2:30 - 3:30 p.m.

Los Angeles

Seats: 50

60-minute hands-on

Intermediate

Geometry

79 Exploring equations and relationships with the TI-Nspire™ CX technology in junior high math

TI-Nspire™ CX Navigator™ system

Sarah Bauguss, sarahbauguss@katyisd.org, @sbauguss, Katy Independent School District, Katy, Texas, United States

Participants will experience activities using the TI-Nspire™ CX handhelds that will build student understanding of the Texas Essential Knowledge and Skills expressions, equations and relationships strand. Participants will leave with ideas for how to use this technology in the 5E instructional model and knowledge of where to find resources.

2:30 - 3:30 p.m.

Denver

Seats: 40

60-minute hands-on

Intermediate

Middle Grades Math

80 Statistics in the middle using the TI-Nspire™ CX handheld

TI-Nspire™ CX handheld

Alice Carson, alice.carson@knoxschools.org, @aliceinmathland, Knox County Schools, Knoxville, Tennessee, United States

We will look at activities that will address data gathering and box plots, discussing other data representations as time permits. Random sampling and simulations will provide the background for introductory inference. These topics will address the middle grades Common Core State Standards.

2:30 - 3:30 p.m.

Chicago

Seats: 40

60-minute hands-on

Beginner

Middle Grades Math

81 Making the transition from the TI-84 Plus graphing calculator to the TI-Nspire™ CX handheld

TI-Nspire™ CX handheld

David Sword, dsword1@hotmail.com, Wayne County Regional Education Service Agency, Wayne, Michigan, United States

Ready to make the switch? It's easier than you might think. This session introduces the TI-Nspire™ CX handheld to those who have had prior experience with the TI-83/TI-84 Plus families of graphing calculators. Learn how to make the transition by connecting familiar TI-83/TI-84 Plus work spaces and tasks to their corresponding functionality on the TI-Nspire™ CX handheld. After this one-hour kick-start, you will be off and running.

2:30 - 3:30 p.m.

Grand Ballroom Salon 1

Seats: 60

60-minute hands-on

Beginner

General Math

82 Assessment, engagement and technology: the perfect fit

TI-Nspire™ CX Navigator™ system

Susan Riker, ticoach.susanriker@gmail.com, TI MathForward™ Implementation Specialist, Kalamazoo, Michigan, United States

Sick of sitting in a session? Tired of taking notes? Then this session is for you! This session will incorporate formative assessment strategies using tried-and-true cooperative learning structures and the TI-Nspire™ CX Navigator™ system. Participants will be expected to get up, move, mix and mingle to experience the perfect fit of technology, formative assessment and a student-centered classroom.

2:30 - 3:30 p.m.

Grand Ballroom Salon 2

Seats: 60

60-minute hands-on

Intermediate

General Math

83 Advanced quantitative reasoning part 1 – number and quantity

TI-Nspire™ CX Navigator™ system

Mike Houston, michaelhouston33@gmail.com, Riverside Beaver Country School District, Ellwood City, Pennsylvania, United States

Co-presenter: Greg Foley

In this session, participants will explore the role played by numbers and quantities in mathematical modeling. You will develop an understanding with and comfort in dealing with information presented in quantitative forms. In working with numbers and quantities, you will develop an ability to explain your methods, reasoning and conclusions to others.

2:30 - 3:30 p.m.

Grand Ballroom Salon 3

Seats: 60

60-minute hands-on

Beginner

General Interest

84 High school teachers are using the TI-Nspire™ CX Navigator™ system to deepen student understanding

TI-Nspire™ CX Navigator™ system

Karen Cockburn, ticoach.kcockburn@gmail.com, TI MathForward™ Implementation Specialist, Spokane Valley, Washington, United States

High school math teachers are using TI-Nspire™ CX handhelds and the TI-Nspire™ CX Navigator™ system to stimulate thinking; promote communication; and give immediate feedback to their algebra I, algebra II, geometry, precalculus, calculus and statistics students. Come see why these teachers say they could never go back to teaching without this technology. The TI MathForward™ coach will share classroom examples with video recordings.

2:30 - 3:30 p.m.

Grand Ballroom Salon 4

Seats: 60

60-minute hands-on

Beginner

General Interest

85 Images as Nspiration

TI-Nspire™ CAS App for iPad®

Jody Crothers, jodstar2000@hotmail.com, @jodstar2000, Safety Bay Senior High School, Secret Harbour, Western Australia, Australia

This session will look at various ways to use images on the TI-Nspire™ CX handheld and TI-Nspire™ CAS App for iPad® to engage student learning. From the simple to the complex, we will model and discuss the use of these valuable resources from the world around us.

2:30 - 3:30 p.m.

Grand Ballroom Salon 5

Seats: 80

60-minute hands-on

Beginner

General Math

86 The power of data: how to take full advantage of data collection using the TI-Nspire™ App for iPad®

TI-Nspire™ App for iPad®

Jon Lepeska, lepeskaj@newtrier.k12.il.us, New Trier High School, Winnetka, Illinois, United States

Co-presenter: Peggy Stetsko

Do you teach regression and residual analysis in your courses? Come see how your students can use the TI-Nspire™ App for iPad® to search for, collect and analyze their own data. Having the Internet, Google Docs™ and TI-Nspire™ App for iPad® all on one device puts the power in students' hands and streamlines analysis, interpretation and discussion. In this session, participants will work through a few student-tested data-collection examples and walk away with ready-to-use activities. Topics will include linear, quadratic, exponential and sinusoidal regression and residual analysis as outlined in the Common Core State Standards statistics standards for algebra II.

2:30 - 3:30 p.m.

Grand Ballroom Salon 6

Seats: 80

60-minute hands-on

Intermediate

Algebra II

87 Learn to Lua

TI-Nspire™ software

John Hanna, jehanna@optonline.net, Hopatcong, New Jersey, United States

Dip your toes in the TI-Nspire™ software Lua pool! This rich resource lets you create your own TI-Nspire™ apps that work as you design them. The pool is open to all who have a general idea of programming (TI Basic is fine) and an appetite for learning new skills. You'll use TI-Nspire™ software to build your own application using free resources readily available on education.ti.com. This will be a computer lab session, so you don't need your own computer. Hurry! Space is limited!

2:30 - 3:30 p.m.

Grand Ballroom Salon 9

Seats: 30

60-minute hands-on

Intermediate

Programming

88 Problem-solving curriculum: Phillips Exeter and TI-Nspire™ software

TI-Nspire™ software

John Cocharo, jcocharo@theoakridgeschool.org, The Oakridge School, Arlington, Texas, United States

I will demonstrate how to use TI-Nspire™ software to solve problems on a particular page of the Phillips Exeter Mathematics III Problem Book. I will show how to clip the problem from the book page, insert it onto a notes page of a document on the TI-Nspire™ handheld showing all work, implement appropriate graphs using geometry and graph tools, and implement other features including animation. In this manner, I will show how my students do these pages from the book, one page at a time, as homework for my class.

2:30 - 3:30 p.m.

Grand Ballroom Salon 10

Seats: 30

60-minute lecture/demonstration

Advanced

Precalculus

90 Logarithms: yesterday, today and tomorrow

TI-84 Plus family of graphing calculators

Deborah Hughes Hallett, dhh@math.arizona.edu, University of Arizona, Cambridge, Massachusetts, United States

In the pre-calculator era, logarithms were essential for calculation. What is their role now? Today's mathematics courses generally include solving exponential equations, but I would argue that this is not enough. This talk will look at the surprising range of ways that other fields use logarithms and suggest directions for the future using the TI-84 Plus family of graphing calculators and Microsoft Excel.

2:30 - 3:30 p.m.

Grand Ballroom Salon 12

Seats: 60

60-minute lecture/demonstration

Beginner

Precalculus

91 Speed dating with the help of a TI-84 Plus CE graphing calculator

TI-84 Plus CE graphing calculator

Jan Mitchener, jmitchen@ccs.k12.in.us, @janmitch2000, Carmel Clay Schools, Carmel, Indiana, United States

Speed dating with polar graphing on the TI-84 Plus CE graphing calculator is one of the activities I use in my precalculus class. I will also share more favorite activities that I have used in my classroom. The TI-84 Plus C Silver Edition graphing calculator enhances student learning and engagement of the topics presented. Participants will leave with lessons ready to use in the classroom.

2:30 - 3:30 p.m.

Grand Ballroom Salon 13

Seats: 60

60-minute hands-on

Beginner

Precalculus

92 Using the TI-Nspire™ CX technology and Probeware with Chromebooks

TI-Nspire™ CX Navigator™ system

Charlie Smith, charliesmith@bwls.net, Big Walnut High School, Sunbury, Ohio, United States

My goal is to show you how to use the TI-Nspire™ CX handhelds together with Chromebooks, including demonstrations of collecting data with the calculator and transferring it over to Chromebooks to write and do lab reports.

2:30 - 3:30 p.m.

Grand Ballroom Salon 14

Seats: 60

60-minute lecture/demonstration

Beginner

General Interest

94 Probes, data collection and stats!

TI-84 Plus CE graphing calculator

Sandra Tweedy, sjtweedy@volusia.k12.fl.us, Volusia County Schools, Deland, Florida, United States

Co-presenter: Louise Chapman

Use the TI-84 Plus graphing calculator with probes to learn to collect real-world data. Take that a step farther to analyze the data. Link engaging hands-on activities and data collection to linear regression equations, box plots and normal distribution. Statistics and science tools work really well together to engage and motivate student inquiry and learning. Come share in the fun!

2:30 - 3:30 p.m.

Crystal Ballroom Salon B

Seats: 40

60-minute hands-on

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

96 Getting started with Vernier sensors in biology

TI-Nspire™ CX Navigator™ system

Leann Iacuone, mrsiacuone@yahoo.com, John W. North High School, Riverside, California, United States

Are you a biology teacher? Are you a math teacher that wants to work with a biology teacher to integrate math and science? Are you new to using Vernier® sensors? Would you like to explore some common sensors used in biology before you make a purchase? Come and explore the gas-pressure sensor, pH sensor, colorimeter, oxygen sensor and carbon-dioxide sensor. Come and practice some simple activities to use with your students.

2:30 - 3:30 p.m.

Crystal Ballroom Salon D

Seats: 40

60-minute hands-on

Beginner

Biology

97 STEM Behind Health: curing Type 1 diabetes

TI-Nspire™ CX Navigator™ system

Jeff Lukens, jeffreylukens0613@gmail.com, Sioux Falls, South Dakota, United States

It seems that everyone knows someone who suffers from diabetes. Type 1 diabetes is a form of the disease that typically strikes at an early age and has nothing to do with the lifestyle choices of the young person who has to deal with it. Rather, it is a disease caused by a person's immune system turning against them. Sanford Research in Sioux Falls, South Dakota, is committed to curing Type 1 diabetes. They have partnered with Texas Instruments in an effort to educate people, young and old, about diabetes and give hope to people with the disease.

2:30 - 3:30 p.m.

Crystal Ballroom Salon E

Seats: 40

60-minute hands-on

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

98 Modeling with trigonometric functions

TI-Nspire™ CX Navigator™ system

Yew Fook Chan, yewfook@hotmail.com, School of the Arts Singapore, Singapore

Participants will understand how to use the TI-Nspire™ CX handheld and graphing software to enhance and improve student understanding in the modeling of real-life data using trigonometric functions through an inquiry and discovery approach. We will use the TI-Nspire™ CX Navigator™ system to demonstrate efficient and effective formative assessment strategies used in the teaching and learning of the topic.

2:30 - 3:30 p.m.

Crystal Ballroom Salon F

Seats: 40

60-minute lecture/demonstration

Intermediate

Trigonometry

99 Technology as a tool of investigation in the classroom: an administrator's look-fors

Tammy L. Jones, tammyjones@tljconsultinggroup.com, @TLJCG, TLJ Consulting Group LLC, Lebanon, Tennessee, United States

Technology, strategically implemented at the point of instruction as a tool of investigation, allows many students to develop an understanding of mathematics that would otherwise be beyond them. We will share examples of how to use technology as a tool of investigation from the primary years with the TI-15 Explorer™ elementary calculator through high school with graphing calculators and the TI-Nspire™ App for iPad®, modeling four opportunities for effective questioning along the way. Participants will also receive a list of *look-fors* for administrators and school leaders to use as they support both students and teachers.

2:30 - 3:30 p.m.

Crystal Ballroom Salon K

Seats: 40

60-minute lecture/demonstration

Beginner

Administrator

100 Designing engaging and collaborative lessons for student success

TI-Nspire™ technology

Page Dettman, page.dettmann@sarasotacountyschools.net, Sarasota County Schools, Sarasota, Florida, United States

Co-presenter: Lashawn Frost

Engaging students is a crucial trait of a good lesson. Sarasota County Schools have designed lessons that engage students every day through collaborative learning experiences that purposefully integrate technology and hands-on tools. Come learn how we approached the process of lesson design and how we have used TI-Nspire™ handhelds, software and the TI-Nspire™ Navigator™ system to support collaboration and assessment in our classes.

2:30 - 3:30 p.m.

Crystal Ballroom Salon L

Seats: 40

60-minute lecture/demonstration

Beginner

Administrator

**101 Using the TI-Nspire™ CX CAS handheld to save time in teaching
Common Core algebra I**

TI-Nspire™ CX CAS handheld

Anthony Farrell, afarrell@penncharter.com, The William Penn Charter School, Philadelphia, Pennsylvania, United States

This session will demonstrate how to use the TI-Nspire™ CX CAS handheld and TI-Nspire™ Software in helping support teaching and learning algebra I with a focus on Common Core State Standards. With the expanded content administrators expect us to teach, it is difficult to find time in school schedules to cover all that is required. Come learn ways to shorten the learning curve for students and thus save time in the schedule.

2:30 - 3:30 p.m.

Crystal Ballroom Salon M

Seats: 40

60-minute lecture/demonstration

Beginner

Computer Algebra System (CAS)

102 The cubic: the polynomial that keeps on giving

TI-Nspire™ CX Navigator™ system

Peter Flynn, peterjohnflynn@gmail.com, Kyneton, Victoria, Australia

The cubic polynomial possesses many wonderful algebraic and geometric properties that go largely unmentioned in textbooks. In this workshop, participants will use various applications from the TI-Nspire™ CX CAS handhelds to explore and discover some of these properties. Prior basic TI-Nspire™ CX CAS handheld experience would be advantageous; however, beginners are definitely welcome.

2:30 - 3:30 p.m.

Crystal Ballroom Salon N

Seats: 40

60-minute hands-on

Intermediate

Computer Algebra System (CAS)

104 Effectively using challenging tasks to promote students' learning

Diane Briars, dbriars@nctm.org, @dbriars, National Council of Teachers of Mathematics, Reston, Virginia, United States

Engaging students in challenging tasks that involve active meaning-making is essential for building conceptual understanding, problem-solving, reasoning and other mathematical habits of mind. But tasks are just the starting point. This session examines essential teaching practices for using such tasks effectively, including strategies for supporting students as they work through challenging tasks and strategies for facilitating discussions that are more than *show and tell* and advance the learning of the entire class.

2:30 - 3:30 p.m.

Canary 3

Seats: 80

60-minute lecture/demonstration

Intermediate

General Math

105 Overview of the TI-30Xa scientific calculator

TI-30Xa scientific calculator

Beth Smith, bethinghamsmith@gmail.com, @bismith60, TI MathForward™ Implementation Specialist, Jacksonville, Florida, United States

Let's spend some time getting to know the TI-30Xa scientific calculator, which students may use on the Florida Standards Assessment. Learn how classroom use helps students become familiar with the TI-30Xa scientific calculator and how to use the calculator as an investigation and discovery tool. Walk away with new knowledge and ideas to help your students be more successful.

2:30 - 3:30 p.m.

Canary 4

Seats: 80

60-minute hands-on

Beginner

Algebra I

360 So you have to teach Common Core statistics – now what? Learning statistics with the TI-Nspire™ CX handheld

TI-Nspire™ CX handheld

Mary Giannetto, mlgia@aol.com, North Salem High School, North Salem, New York, United States

Participants will take away with them activities that they can use to help their students understand the statistics content of the algebra and algebra II Common Core State Standards.

2:30 - 3:30 p.m.

North Tower: Aruba

Seats: 36

60-minute hands-on

Beginner

Statistics

361 Using real-world data and TI-Nspire™ technology in statistics and all other math classes

TI-Nspire™ CX Navigator™ system

Jessica Kachur, jessicakachur@yahoo.com, @jessicakachur, Bradford High School, Kenosha, Wisconsin, United States

You have to include a section in your high school math class called statistics. What are you going to do? It is just mean, median and mode? Is it just drawing a bunch of graphs? Not any more! It's time to look at normal distributions, relative frequency, associations and trends. What does it really mean to be an outlier, or to be a line of best fit? How can you use TI technology and real-world data to help your students gain a deep understanding of these concepts?

2:30 - 3:30 p.m.

North Tower: Bahamas

Seats: 36

60-minute hands-on

Intermediate

Statistics

378 Statistics and calculus: exploring normal distribution using the TI-84 Plus Silver Edition graphing calculator

TI-84 Plus Silver Edition graphing calculator

Anne Katz, akatz@regisjesuit.com, Regis Jesuit High School, Glendale, Colorado, United States

Co-presenter: Katelyn Long

We will be applying calculus methods and statistical methods to the normal distribution. We will be using the TI-84 Plus family of graphing calculators to assist in our calculations. This session is applicable to those teaching any level of statistics or calculus.

2:30 - 3:30 p.m.

North Tower: Grand Cayman

Seats: 36

60-minute hands-on

Intermediate

Statistics

106 Implementing Common Core Math Practices while on your TI-84 Plus graphing calculator family staycation!

TI-84 Plus CE graphing calculator

Edward Chaves, eddie_chaves@yahoo.com, @ChavesEddie, Miami-Dade County Public Schools, Miami, Florida, United States

The main ideas behind this 90-minute hands-on presentation are to jointly learn how to engage in the Common Core State Standards for Mathematical Practice and investigate how technology enhances the implementation of the CCSS Math Practices to the Mathematics Florida Standards using the TI-84 Plus family of graphing calculators. Imagine the possibilities – have a staycation today! (Accommodations: skills, content knowledge, CCSS Math Practices and the TI-84 Plus family.) Infuse these into your school to support educational leaders while engaging students.

3:45 - 5:15 p.m.

Washington

Seats: 40

90-minute hands-on

Beginner

Algebra I

107 Applications to enhance learning

TI-84 Plus Silver Edition graphing calculator

JoAnn Miltenberg, milty630@aol.com, Farmingdale Public Schools, Hicksville, New York, United States

Use the APPS key for the TI-84 Plus family of graphing calculators to decrease *chalk 'n talk* and increase depth of understanding. This workshop provides an overview on integrating applications like guess my coefficient, area formulas, probability simulation, transformation graphing, algebra I and more into your curriculum, providing an entertaining way for students to study and learn.

3:45 - 5:15 p.m.

Tampa

Seats: 40

90-minute hands-on

Beginner

Algebra I

109 Fun and engaging activities using technology that address Common Core

TI-84 Plus CE graphing calculator

Randy Lobe, randylobe@comcast.net, Timberline High School/North Thurston Public Schools, Lacey, Washington, United States

After 25 years of teaching mathematics, I have acquired some fun activities that engage students into participating, thus allowing learning to take place. Technology allows us to ask questions and look at mathematics in a way that addresses the Common Core State Standards and makes learning more fun. We will explore these activities using the TI-84 Plus family of calculators. You will walk away with activities ready to use in your classroom with your students that address Common Core.

3:45 - 5:15 p.m.

San Francisco

Seats: 40

90-minute hands-on

Intermediate

Algebra II

110 No bones about it

TI-Nspire™ CX Navigator™ system

Sherrina Clark, sherrina_clark@kernhigh.org, @mrsclark14, Independence High School/Kern County, Bakersfield, California, United States

Using a crime scene investigation video hook and some data collection, participants will use the TI-Nspire™ CX handhelds to help determine which bone in the body is best to predict a person's height. After a hands-on collection of data and some exciting intuitive ways to use the handheld, participants will be quite surprised with the results!

3:45 - 5:15 p.m.

San Antonio

Seats: 40

90-minute hands-on

Intermediate

Algebra II

111 MAFS or CCSS: Use the TI-Nspire™ CX technology to develop mathematical practices in your students

TI-Nspire™ CX Navigator™ system

Marian Prince, marian.prince50@gmail.com, Andrews University, Sawyer, Michigan, United States

No matter the state in which you teach, you can use the TI-Nspire™ CX handheld to develop mathematical practices and mathematical thinking in your students. This workshop presents engaging tasks covering functions at the algebra I, algebra II and precalculus level that you can use with your students in a game-like environment. Beginners and intermediate users are welcome. We will use the TI-Nspire™ Navigator™ classroom learning system to enhance the presentation.

3:45 - 5:15 p.m.

New York

Seats: 50

90-minute hands-on

Beginner

Algebra I

112 Math and the arts

TI-Nspire™ CX CAS handheld

Leza Baker, lbaker@lexrich5.org, Irmo High School, Columbia, South Carolina, United States

We will use the TI-Nspire™ CX or TI-Nspire™ CX CAS handheld to show how you can incorporate art within a math classroom. Students will create transformations of various functions and then create artwork where they show the parent function and various transformations. For geometry students, we will review transformations using the calculator and then create perspective drawings that artistically represent dilations. Adding art allows the students to view the information in a new way.

3:45 - 5:15 p.m.

New Orleans

Seats: 50

90-minute hands-on

Intermediate

Geometry

113 How much is in there?

TI-84 Plus Silver Edition graphing calculator

Leanne Barbour, lbarbour@martinsville.k12.va.us, Martinsville City Public Schools, Callands, Virginia, United States

Can you remember the formula for the sum of the interior angles of a polygon? Neither can your students. Come join me for a hands-on investigation and discovery of this formula using craft sticks, paper and the TI-84 Plus Silver Edition graphing calculator.

3:45 - 5:15 p.m.

Los Angeles

Seats: 50

90-minute hands-on

Beginner

Geometry

114 Five major math concepts that ninth-graders do not understand

TI-Nspire™ CX Navigator™ system

Ellen Johnston, ellenclj@gmail.com, @ellenclj, Southern Regional Education Board, Vian, Oklahoma, United States

In this session, we will look at five major math concepts that ninth graders do not understand but that are foundational for success in algebra I. We will explore resources from MathNspired, the Mathematics Assessment Project and others to help build conceptual understanding of these concepts. This session will be appropriate for middle or high school math teachers.

3:45 - 5:15 p.m.

Denver

Seats: 40

90-minute hands-on

Beginner

Middle Grades Math

115 Algebra II Common Core – get Nspired to navigate your way through the standards!

TI-Nspire™ CX Navigator™ system

Robyn Poulsen, rpoulsen@lpcsd.org, @RobynPoulsen, Lake Placid High School, Lake Placid, New York, United States

Co-presenter: Tammy Casey

The TI-Nspire™ CX Navigator™ system has helped me effectively teach and assess my algebra II students for years. TI-Nspire™ technology, combined with the flipped classroom, makes teaching Common Core State Standards easier. Participants will actively engage in activities that I use in my algebra II classroom. I will place some emphasis on teaching the statistics in Common Core algebra II.

3:45 - 5:15 p.m.

Chicago

Seats: 40

90-minute hands-on

Intermediate

Algebra II

116 Constructivist methods in mathematics with TI technology

TI-Nspire™ CX CAS handheld

Manuel Antonio Montero Gaona, mantonio_montero@hotmail.com, Institute Santander, Fusagasugá, Cundinamarca, Colombia

Building mathematical thinking in students means seeing their prior knowledge; from this you can create a solid foundation in the world of mathematics. In the classroom, we must develop activities aimed at using the computer, but these should focus on the development of logical thinking in students. For this we rely on programming and programs that students must solve step by step. This process is where issues previously learned are understood.

3:45 - 5:15 p.m.

Grand Ballroom Salon 1

Seats: 60

90-minute hands-on

Beginner

General Math

117 Flipping AP* Calculus and geometry with the TI-Nspire™ CX CAS handheld and TI-Nspire™ CX Navigator™ system

TI-Nspire™ CX Navigator™ system

Joanne Ryan, jryan@buckley.org, The Buckley School, Sherman Oaks, California, United States

Co-presenter: Juan De la Cruz

Find out why flipping is such a powerful way to engage students in the classroom while providing for individual instruction and reducing homework load. Collaboration, mathematical discourse and problem-solving abound in our student-centered environment where young mathematicians discuss, analyze, apply and synthesize the concepts in our curriculum. Learn how easily (and inexpensively) you can plan, record, render and upload videos. See how we use TI-Nspire™ CX CAS handhelds and the TI-Nspire™ CX Navigator™ system to perform formative and formal assessments while our students gain proficiency with these technologies. Our students are loving the flipped classroom and so will you!

3:45 - 5:15 p.m.

Grand Ballroom Salon 2

Seats: 60

90-minute hands-on

Intermediate

Calculus

118 Advanced quantitative reasoning part 2 – statistics and probability

TI-Nspire™ CX Navigator™ system

John Ashurst, t3instructor@gmail.com, @kiltedcyclist, Harlan Independent Schools, Baxter, Kentucky, United States

Co-presenter: Steve Phelps

Statistics and probability go hand in hand. Counting principles underlie many probability computations, and probability in turn undergirds many ideas in statistics. Moreover, according to the Common Core State Standards for Mathematics, we should employ simulations to model probability situations, make inferences, and establish significance. In this session, we will use the List and Spreadsheet page and the Data and Statistics page on the TI-Nspire™ CX CAS handhelds to construct, conduct and display the results of simulations on various random variables and explore whether obtained results are ordinary or extraordinary.

3:45 - 5:15 p.m.

Grand Ballroom Salon 3

Seats: 60

90-minute hands-on

Beginner

General Interest

119 Using the TI-Nspire™ Teacher Software and TI-Nspire™ CX Navigator™ Software for discovery, immediate assessment and remediation

TI-Nspire™ CX Navigator™ system

Mary Brese, t3mbrese@gmail.com, @OUMathdoctor, Harrah, Oklahoma, United States

Become more familiar with TI-Nspire™ Teacher Software question-writing options, Quick Poll features and assessment opportunities. You can insert Quick Poll questions into any TI-Nspire™ activity at any time; this allows for immediate analysis of student understanding and the results can lead to instantaneous remediation. Also, you can use TI-Nspire™ Teacher Software for testing that includes the opportunity to create and provide individualized, modified assessments.

3:45 - 5:15 p.m.

Grand Ballroom Salon 4

Seats: 60

90-minute hands-on

Beginner

Formative Assessment

121 iPads® and flipped mathematics

Sandra Speller, ssphd2014@gmail.com, Linden-McKinley STEM Academy, Columbus, Ohio, United States

Designed for algebra I teachers interested in flipping their class, this session will provide the necessary tools to successfully transition to the flipped mathematics classroom. Teachers will leave this session with enough information to flip their classes and resources to use in their classes.

3:45 - 5:15 p.m.

Grand Ballroom Salon 6

Seats: 80

90-minute lecture/demonstration

Beginner

Algebra I

122 No handhelds? No problem! Use TI-Nspire™ software as a whole-class demonstration tool

TI-Nspire™ software

Julie Riggins, julie.riggins@gmail.com, @jrigginsEFHS, East Forsyth High School, Kernersville, North Carolina, United States

You may not have a class set of TI-Nspire™ CX handhelds yet, but don't let that stop you from using the power and flexibility of TI-Nspire™ software to instruct your students using demonstration and discovery to make sense of difficult problems. I will show how I have used the software to enhance student understanding of topics such as linear programming, the box problem, radians, derivatives, and sine and cosine graphs, and then teach you some basics to create your own or edit existing documents from MathNspired.com or the Activities Exchange.

3:45 - 5:15 p.m.

Grand Ballroom Salon 9

Seats: 30

90-minute hands-on

Beginner

Algebra II

123 Formative assessment and differentiated instruction using the TI-Nspire™ CX Navigator™ system

TI-Nspire™ CX Navigator™ system

Hugh Daniels, hdaniels@live.com, Yelm High School, Yelm, Washington, United States

This session will provide you with tips on using the TI-Nspire™ CX Navigator™ system to use formative assessment to determine student levels of understanding and then provide tiered (differentiated) instruction to meet the needs of various levels of ability or understanding. Examples will include how to use the Quick Poll feature and assessment documents to help determine student levels, as well as documents that provide multiple levels of instruction.

3:45 - 5:15 p.m.

Grand Ballroom Salon 10

Seats: 30

90-minute hands-on

Intermediate

General Math

124 Fractions: it's Mickey Mouse – teaching and learning with the TI-15 Explorer™ elementary calculator and TI-30XS MultiView™ scientific calculator

TI-30XS MultiView™ scientific calculator

Chris Ruda, cruda@juno.com, Miami, Florida, United States

Co-presenter: Marsha Burkholder

Fractions? That's Mickey Mouse! Discover how the TI-15 Explorer™ elementary calculator, TI-30XS MultiView™ scientific calculator and TI-SmartView™ emulator for TI-Nspire™ technology can help build conceptual understanding and make fractions meaningful. Participants will engage in practice-rich tasks that integrate the unique features of TI technology, digital content and manipulatives. Specific examples of Common Core State Standards for Mathematical Practice in action will show effective teaching of fractions for all learners.

3:45 - 5:15 p.m.

Grand Ballroom Salon 11

Seats: 60

90-minute hands-on

Beginner

Elementary Math

125 Using TI-Nspire™ documents in precalculus

TI-Nspire™ CX Navigator™ system

Philip Magner, mathman@sbcglobal.net, California State University Stanislaus, Modesto, California, United States

How can you use TI-Nspire™ technology in a classroom when everyone doesn't have a handheld? What documents can you write to encourage student discussion of mathematical principles? What would a document look like that would preview your next lesson when the technology is limited? I've been using TI-Nspire™ technology and have written documents that I will share on trigonometry, rational functions, exponential functions and other precalculus topics. Come and join the discussion. Look at more advance question types that are embeddable into TI-Nspire™ documents.

3:45 - 5:15 p.m.

Grand Ballroom Salon 12

Seats: 60

90-minute hands-on

Intermediate

Precalculus

127 Meaningful two-way assessments using the TI-Nspire™ CX Navigator™ system

TI-Nspire™ CX Navigator™ system

Robin Gapinski, rgapinski@dist113.org, Highland Park High School, Highland Park, Illinois, United States

Co-presenter: Debbie Dicker

Learn the pros and cons of Quick Polls vs. sending and collecting documents. You will see how students can do their homework on the TI-Nspire™ handheld and submit it to you for feedback! Emphasis will be placed on how teachers can use the Portfolio and Review features on the TI-Nspire™ CX Navigator™ system and give in-depth feedback to students through a two-way approach, redistributing graded self-check assessments with individualized and meaningful feedback that will not only make collecting and grading assessments easy but will encourage your students to reflect, persevere in problem-solving, and take ownership for their own learning process.

3:45 - 5:15 p.m.

Grand Ballroom Salon 14

Seats: 60

90-minute hands-on

Intermediate

Assessment

128 Exploring motion with live data and CAS technology: putting the M in STEM

TI-Nspire™ CX Navigator™ system

Stephen Arnold, smarnold@me.com, Compass Learning Technologies, Swansea, Texas, United States

TI SensorTag 2.0 offers amazing opportunities for science, technology, engineering and math classroom applications. For less than \$30, this device literally puts real-world data collection in the palm of your hand: temperature (both ambient and infrared), humidity, barometric pressure, acceleration, magnetometer, gyroscope, light intensity – a powerful range of learning opportunities in a tiny, simple device. Missing from the collection: displacement and velocity data – or is it? This is not an oversight but an opportunity: explore ways in which students can discover motion data from surprising sources and learn some great mathematics along the way.

3:45 - 5:15 p.m.

Crystal Ballroom Salon A

Seats: 40

90-minute hands-on

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

129 Engineering – the missing piece of the puzzle!

TI-Nspire™ CX Navigator™ system

Greg Dodd, gbdodd@gmail.com, Pennsboro, West Virginia, United States

Our future depends on making America more competitive by training a science, technology, engineering and math (STEM)-educated workforce. STEM instruction must include cross-curricular use of 21st-century skills and technology. There is little difficulty integrating science, math, and technology. This workshop focuses on engineering design – one of the Next Generation Science Standards Science and Engineering Practices. This activity incorporates Science Practices 3 (planning and carrying out investigations), 4 (analyzing and interpreting data) and 6 (constructing explanations and designing solutions). The goal is to ease teacher concerns by participating in a hands-on STEM activity to understand how a colorimeter works and how to design a simple colorimeter.

3:45 - 5:15 p.m.

Crystal Ballroom Salon B

Seats: 40

90-minute hands-on

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

130 That's the way the ball bounces

TI-84 Plus CE graphing calculator

Michelle Merriweather, mmerriweather@gmail.com, Bronxville High School, White Plains, New York, United States

This session will demonstrate how to collect data using probes and the TI-84 family of graphing calculators. We will work through several activities that help connect the functions we study with their applications. Applications include ball bounce to study quadratic and exponential functions, and an aspirin simulation to study power functions.

3:45 - 5:15 p.m.

Crystal Ballroom Salon C

Seats: 40

90-minute hands-on

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

131 Introduction to data collection and analysis with the TI-Nspire™ CX handheld and TI-Nspire™ CX Navigator™ system

TI-Nspire™ CX Navigator™ system

Todd Graba, tgraba@d155.org, @tgrabes17, Crystal Lake District 155, Crystal Lake, Illinois, United States

In this session, educators new to the TI-Nspire™ CX technology will learn how to use the technology with a few sensors to collect and analyze data, and use the TI-Nspire™ Navigator™ classroom learning system to monitor and assess students during the activity. This is not content-specific, and will be good for middle or high school science courses.

3:45 - 5:15 p.m.

Crystal Ballroom Salon D

Seats: 40

90-minute hands-on

Beginner

General Science

135 Hello world! An introduction to writing code to program TI-Nspire™ technology

TI-Nspire™ CX Navigator™ system

Becky Underwood, rebecca_underwood@natronaschools.org, @U23Becky, Kelly Walsh High School, Casper, Wyoming, United States

Co-presenter: Becky Byer

Have you ever thought, *I would love to be able to teach my students to program using TI-Nspire™ technology – but I just don't know where to begin?* In this session, you will learn programming techniques to complete that exact task. We will start at the beginning with a very simple *Hello World* program and work our way up to programs that include sequential, conditional and looping code. Past programming experience is helpful but not required. If you have a computer with TI-Nspire™ software, you might want to bring it with you.

3:45 - 5:15 p.m.

Crystal Ballroom Salon L

Seats: 40

90-minute hands-on

Beginner

Programming

137 Using the CAS in middle school math

TI-Nspire™ CX Navigator™ system

Michelle Bonds, lil_bitmic@hotmail.com, @mibonds, Bald Knob Public Schools, Bald Knob, Arkansas, United States

The TI-Nspire™ CX CAS handheld is the perfect tool for investigating math concepts. Come learn how to use this technology effectively for grades 5-8. We will share example activities and you will have a chance to create your own. No experience necessary.

3:45 - 5:15 p.m.

Crystal Ballroom Salon N

Seats: 40

90-minute hands-on

Beginner

Computer Algebra System (CAS)

138 Q&A with Dylan Wiliam

Dylan Wiliam, dylanwiliam@mac.com, @dylanwiliam, Starke, Florida, United States

Practice your questioning techniques with the expert himself! Learn firsthand how formative assessment strategies empower students and significantly increase engagement at this lively Q&A with Dylan Wiliam. The session will include a discussion of Wiliam's latest book, *Embedding Formative Assessment*, and how to change what teachers do in classrooms **while** they are teaching. Come ready with your questions!

3:45 - 5:15 p.m.

Canary 1/2

Seats: 160

90-minute lecture/demonstration

Beginner

Administrator

139 CAS activities that integrate dynamic geometry and dynamic algebra using handhelds, the TI-Nspire™ App for iPad® or TI-Nspire™ software

TI-Nspire™ CX CAS handheld

Tom Reardon, tom@tomreardon.com, @tomreardon3, Youngstown State University, Poland, Ohio, United States

This is a cool way to learn and teach: have your students investigate a geometry activity that's hands-on, interactive and self-paced. Then have them test and generate their hypotheses and prove their results using coordinate algebra with the computer algebra system (CAS) to assist with the heavy algebra. They are still doing the thinking, the logic, the investigating and the problem-solving, but let CAS assist them with the difficult mathematics. Have your students develop and prove the distance from a point to a line formula. There is a lot of great mathematics in these activities, and some surprising but fascinating results.

3:45 - 5:15 p.m.

Canary 3

Seats: 80

90-minute lecture/demonstration

Beginner

Computer Algebra System (CAS)

362 AP* Statistics: Type II error and the power of a test

TI-84 Plus CE graphing calculator

Mike Koehler, mikoehler@aol.com, Blue Valley North High School, Kansas City, Missouri, United States

Explore the necessary background and activities that you can use in the classroom to teach type II error and the power of a test. Participants will get hands-on experience using simulations that model effective classroom use of technology as well as activities used successfully in Advanced Placement statistics classes. The topic is difficult for students, and some teachers have trouble explaining the concept. The workshop will address both concerns.

3:45 - 5:15 p.m.

North Tower: Aruba

Seats: 36

90-minute hands-on

Intermediate

Statistics

363 Using TI-Nspire™ technology to enhance understanding of the central limit theorem

TI-Nspire™ CX Navigator™ system

Lee Kucera, lekucera@cox.net, @leekucera, University of California, Irvine, Laguna Beach, California, United States

The central limit theorem is a key topic in statistics that is difficult for students. This session will take a quick look at several activities using the TI-Nspire™ handheld to generate data and explore the central limit theorem (activities can be used with TI-84 Plus graphing calculators but are better using TI-Nspire™ handhelds).

3:45 - 5:15 p.m.

North Tower: Bahamas

Seats: 36

90-minute hands-on

Intermediate

Statistics

379 M&M's® and Bayes' theorem

TI-Nspire™ CX Navigator™ system

Deobra Solomon, mathiscool_chick@yahoo.com, @deobra, Sparks, Nevada, United States

We will be exploring the statistical world of M&M's®. Along with some data collection and real-world information, we will explore experimental and theoretical probabilities as they pertain to M&M's® and look at past information for experimental and theoretical probabilities, including Bayes' theorem for the elimination of bias in testing.

3:45 - 5:15 p.m.

North Tower: Grand Cayman

Seats: 36

90-minute hands-on

Intermediate

Statistics

Saturday Session Details

Come
Learn
Go
Teach

#T3IC

141 Provoking algebraic thinking with the TI-Nspire™ CX technology

TI-Nspire™ CX Navigator™ system

Angela Melnyk, melnykas8@gmail.com, @AngieMelnky, Fort Leavenworth, Kansas, United States

Students can use explorations on the TI-Nspire™ CX handhelds to develop algebraic understandings. They can examine the graph of inequalities to determine solutions and explore the effects of changing parameters of parent functions. This session will show how students can use TI-Nspire™ explorations to provoke algebraic thinking.

8 - 9:30 a.m.

Washington

Seats: 40

90-minute hands-on

Beginner

Algebra I

142 Investigating statistics in algebra I using the TI-Nspire™ CX technology

TI-Nspire™ CX Navigator™ system

Katie Martinez, ksallard20@yahoo.com, @kmartinezteach, La Costa Canyon High School, Encinitas, California, United States

Participants will engage in activities using the TI-Nspire™ CX handhelds to investigate statistics topics explored in algebra I such as scatter plots, regression modules and residuals.

8 - 9:30 a.m.

Tampa

Seats: 40

90-minute hands-on

Beginner

Algebra I

143 Meeting the math standards with the help of a graphing calculator

TI-84 Plus CE graphing calculator

Fred Decovsky, fdecovsky@aol.com, Millburn, New Jersey, United States

Explore how to use the TI-84 Plus family of graphing calculators and standards-based lessons to improve student understanding and create an engaging classroom environment. Gain hands-on experience using the APPS key, programs, data modeling and other features of the calculator.

8 - 9:30 a.m.

St. Louis

Seats: 40

90-minute hands-on

Intermediate

Algebra I

144 Constructing algebra with the TI-Nspire™ CX handheld

TI-Nspire™ CX handheld

Pamela Harris, pharris@byu.net, @pwharris, University of Texas at Austin, Kyle, Texas, United States

How can technology help students construct algebra I and algebra II? How can we use the power of visualization, speed and generalization made possible with powerful technology to help students mathematize important big ideas, models and strategies? Come and engage in examples of tasks using TI-Nspire™ technology that promote student structuring and schematizing.

8 - 9:30 a.m.

San Francisco

Seats: 40

90-minute hands-on

Intermediate

Algebra II

145 Algebraic inverses and the TI-84 Plus CE graphing calculator

TI-84 Plus CE graphing calculator

Kim Thomas, kim.thomas@me.com, @Veronica_math, Moon Valley High School/Glendale Union High School District, Peoria, Arizona, United States

Co-presenter: Veronica Carlson

Using conversion formulas for temperature as a starting point, we will examine ways to work with algebraic inverses. Participants will work with lists, scatter plots, regressions and the draw inverse feature as we reason abstractly and quantitatively and look for express regularity in repeated reasoning.

8 - 9:30 a.m.

San Antonio

Seats: 40

90-minute hands-on

Beginner

Algebra II

146 Want to be a millionaire?

TI-Nspire™ CX CAS handheld

Patricia Carroll Bowling, pat.bowling@augustaprep.org, Martinez, Georgia, United States

Explore finance applications on the TI-Nspire™ CX or TI-Nspire™ CX CAS handheld! This will be an introduction to the fields in the finance application, accompanied by some of the mathematics behind why the various formulas work. It will explore how money grows over time with single or repeated investments. It will look at how money can be spread out over time when it is time to retire. The finance application on the TI-84 Plus family of graphing calculators works similarly for the same problems and explorations, so TI-84 Plus users are welcome.

8 - 9:30 a.m.

New York

Seats: 50

90-minute hands-on

Intermediate

Precalculus

147 Using TI-Nspire™ 3-D graphing to create solids of revolution

TI-Nspire™ CX Navigator™ system

Steve Phelps, sphelps@madeiracityschools.org, Madeira High School, Cincinnati, Ohio, United States

Co-presenter: Jeff Corn

Participants will learn how to take advantage of the 3-D graphing capabilities of the TI-Nspire™ CX technology to create wonderful solids of revolutions. You will learn how to take any region between a function and the x-axis and graph the resulting solid of revolution formed by rotating the region around the x-axis or y-axis. You will also create a solid of revolution formed by rotating the region between two functions around the x-axis or y-axis. You will incorporate sliders into your graphs to bring these solids of revolution to life!

8 - 9:30 a.m.

New Orleans

Seats: 50

90-minute hands-on

Intermediate

Calculus

148 Best student success strategy = formative assessment: with and without the TI-Nspire™ CX Navigator™ system

TI-Nspire™ CX Navigator™ system

Katie England, katie.england@comcast.net, @EnglandKatie, Montgomery County Public Schools, Westminster, Maryland, United States

For years research has told us that effective formative assessment processes give us the biggest gains in student achievement, more than any intervention or program. It's not just quizzes and tests! Come explore a variety of effective strategies both with and without the use of the TI-Nspire™ CX Navigator™ system and other technologies. We'll examine interactive activities in middle grades, algebra and statistics, reflect on assessment processes, and discuss how to support each other while planning for assessment. Discussions will be great for teachers and administrators. You'll walk away with activities and strategies that you can implement on Monday!

8 - 9:30 a.m.

Los Angeles

Seats: 50

90-minute hands-on

Intermediate

Formative Assessment

149 Strategies to Nspire: engaging struggling learners with technology

TI-Nspire™ CX Navigator™ system

Melissa Sigley, melissa_sigley@mcpsmd.org, Neelsville Middle School, Germantown, Maryland, United States

Co-presenter: Jessica Christopher

Walk away with practical strategies! Neelsville Middle School is addressing its achievement gap by placing every eighth-grade student in high school-level algebra. Join us as we share our passion for engaging all learners using TI-Nspire™ technology to facilitate and differentiate exploratory tasks, multiple representations, creative grouping and math-based team builders. Experience how we bring together these strategies to engage struggling learners!

8 - 9:30 a.m.

Denver

Seats: 40

90-minute hands-on

Intermediate

Middle Grades Math

150 Statistics in middle school and the TI-Nspire™ CX technology

TI-Nspire™ CX Navigator™ system

Murney Bell, murneybell@sbcglobal.net, @mrBell01, Siena Heights University, Chesterfield, Michigan, United States

How can we use the TI-Nspire™ CX technology to teach statistics in middle school within the area of standards such as Common Core State Standards? One way to help students develop their statistical reasoning is to incorporate active-learning strategies. The TI-Nspire™ CX handheld enables students to supplement what they have heard and read about statistics by actually doing statistics: collecting data, analyzing their results, preparing written reports, and giving oral presentations.

8 - 9:30 a.m.

Chicago

Seats: 40

90-minute hands-on

Intermediate

Middle Grades Math

151 Prepare for online assessments like PARCC/SBAC using the TI-Nspire™ CX Navigator™ system

TI-Nspire™ CX Navigator™ system

Pareesa Shirazi, ticoach.pareesashirazi@outlook.com, @PareesaShirazi, TI MathForward™ Implementation Specialist, Albuquerque, New Mexico, United States

Don't want to take time out of the classroom preparing your students for online assessments like the Partnership for Assessment of Readiness for College and Careers (PARCC) or Smarter Balanced Assessment Consortium (SBAC)? You don't have to! Learn how to use your TI-Nspire™ CX Navigator™ system to give students ongoing practice for both the Content and Technology expectations of computer-based Common Core State Standards assessments. Leave with .tns question templates that can prepare students for PARCC or SBAC in grades 6-12.

8 - 9:30 a.m.

Grand Ballroom Salon 1

Seats: 60

90-minute hands-on

Intermediate

General Math

152 My favorite discovery activities

TI-Nspire™ CX Navigator™ system

Tammy Casey, twager5875@yahoo.com, @tcasey1p, Lake Placid Central School District, Lake Placid, New York, United States

Co-presenter: Robyn Poulsen

We will look at five different ready-made activities that you can use right away in your classroom to get students to discover math. We will walk through activities suitable for use in middle school, algebra, geometry, algebra II and precalculus. We will explore activities for both the TI-84 Plus graphing calculator and TI-Nspire™ CX handheld.

8 - 9:30 a.m.

Grand Ballroom Salon 2

Seats: 60

90-minute hands-on

Beginner

General Math

153 The logical choice

TI-84 Plus CE graphing calculator

Jim Nakamoto, tcubedjim@gmail.com, Richmond, British Columbia, Canada

Have you wanted to use a graphics calculator and work with mathematical logic? Did you know that the TI-83/TI-84 Plus families of graphing calculators can help you do this quite well? This introduction will focus on creating a truth table and considering conditional statements (THIS IMPLIES). It is well suited to students in geometry or those in International Baccalaureate math studies.

8 - 9:30 a.m.

Grand Ballroom Salon 3

Seats: 60

90-minute hands-on

Intermediate

General Interest

154 Creative solutions with the TI-84 Plus CE graphing calculator

TI-84 Plus CE graphing calculator

Jean McKenny, jmckenny@together.net, Northeast Kingdom Learning Services, Derby, Vermont, United States

Implementing the eight Common Core State Standards for Mathematical Practice and Mathematics Florida Standards will involve changes in how students learn. Interesting investigations, modeling using real-world data, interdisciplinary and authentic problems, content-rich activities and abundant technology can facilitate these changes. This session will share some examples that will engage students and motivate them to enjoy this way of learning. Participants will engage with problems using the TI-84 Plus CE graphing calculator or TI-Nspire™ technology.

8 - 9:30 a.m.

Grand Ballroom Salon 4

Seats: 60

90-minute hands-on

Intermediate

General Interest

155 Getting APPY with TI-Nspire™ technology

TI-Nspire™ CAS App for iPad®

Matthew Owens, mowens@richland2.org, Richland County School District Two, Columbia, South Carolina, United States

This session will be devoted to learning some of the most powerful features of the TI-Nspire™ CAS App for iPad® and discovering didactic ways of motivating mathematics with these digital tools. We will give best practices and tips to improve teaching and learning mathematics in high school. Participants will also discover ways to implement the eight Common Core State Standards for Mathematical Practice.

8 - 9:30 a.m.

Grand Ballroom Salon 5

Seats: 80

90-minute hands-on

Beginner

Algebra II

157 Creating your TI-84 Plus CE graphing calculator classroom using the TI-SmartView™ CE Emulator Software and TI-Connect™ CE software for the TI-84 Plus graphing family

TI-84 Plus CE graphing calculator

Margo Lynn Mankus, margo.mankus@ti.com, @MLMankus, Beacon, New York, United States

Experience how to create a customized classroom using computer software from the TI-84 Plus CE graphing calculator classroom solution! Use the TI-SmartView™ CE emulator for TI-Nspire™ technology for class investigations, converting images and creating presentations/handouts, along with using the TI Connect™ CE software application to manage calculator files.

8 - 9:30 a.m.

Grand Ballroom Salon 9

Seats: 30

90-minute hands-on

Beginner

Algebra I

158 Exploring the geometry construction menu

TI-Nspire™ technology

Martin Sanchez, ticoach.martinsanchez@outlook.com, @MsanchezVaron, Houston, Texas, United States

Co-presenter: Mark Arguijo

This session will explore the different geometric construction tools under the geometry construction menu. We will develop short activities designed to help familiarize you with the construction tools as we construct different geometric objects. Join us as we experience TI-Nspire™ technology and incorporate authoring concepts into these activities.

8 - 9:30 a.m.

Grand Ballroom Salon 10

Seats: 30

90-minute hands-on

Beginner

Geometry

159 Using the TI-84 Plus CE graphing calculator in calculus

TI-84 Plus CE graphing calculator

Don Worcester, dworcester@cfl.rr.com, Trinity Preparatory School, Winter Park, Florida, United States

This session will show participants how to effectively use the TI-84 Plus CE graphing calculator in calculus courses. Topics will include the area between two curves, slope fields and Newton's method. We will also explore previous Advanced Placement calculus exam questions that require the use of a graphing calculator.

8 - 9:30 a.m.

Grand Ballroom Salon 11

Seats: 60

90-minute lecture/demonstration

Beginner

Calculus

160 Modeling nature's trigonometric nature on the TI-84 Plus graphing calculator

TI-84 Plus CE graphing calculator

Lynda Ferneyhough, d2ybydx2@hotmail.com, Plympton-Wyoming, Ontario, Canada

Co-presenter: Fred Ferneyhough

Natural phenomena often exhibit cyclical patterns (tides, moon phases, sunrise/sunset, daylight hours). We will graph, model with a trigonometric function, and analyze data for several such phenomena.

8 - 9:30 a.m.

Grand Ballroom Salon 12

Seats: 60

90-minute hands-on

Intermediate

Precalculus

161 Question-formulating technique with the TI-Nspire™ CX technology

TI-Nspire™ CX Navigator™ system

RuthieAnn Trujillo, ruthieann.trujillo@aps.edu, @ruthieann14, Albuquerque Public Schools, Albuquerque, New Mexico, United States

Engineering effective discussions, questions and tasks that elicit evidence of learning from the five strategies of assessment for learning is key to the classroom. Participants will leave this session with strategies to teach students to ask their own questions using the question formulation technique (QFT) in conjunction with the TI-Nspire™ CX Navigator™ system. Students create their own questions on math content, using the QFT process to improve their questions, and by default, further and deepen their understanding.

8 - 9:30 a.m.

Grand Ballroom Salon 13

Seats: 60

90-minute hands-on

Intermediate

Formative Assessment

162 I've got a TI-Nspire™ CX Navigator™ system. Now what?

TI-Nspire™ CX Navigator™ system

Alejandra Trevino, alejandra.trevino1@gmail.com, San Benito Consolidated Independent School District, Brownsville, Texas, United States

Co-presenter: Liliana Trevino

In this session, first-time users of the TI-Nspire™ CX Navigator™ system will learn how to use it effectively on a daily basis, from creating an interactive classroom environment that incorporates TI lessons with foldables to assessing student learning with the Quick Poll feature and demonstrations.

8 - 9:30 a.m.

Grand Ballroom Salon 14

Seats: 60

90-minute hands-on

Beginner

General Interest

163 Placeholder for E in STEM session

TI-Nspire™ CX CAS handheld

Fred Fotsch, ffotsch@ti.com, Dallas, Texas, United States

Attend this session and come see the latest in STEM technology to be released by Texas Instruments in the fall. This exciting new hardware and software will enable many modes of hands-on learning for your students. The technology will enable coding for interaction with the real-world (physical computing) and also project based science lessons (NGSS). Help your students build STEM projects and learn the skills to become a maker.

8 - 9:30 a.m.

Crystal Ballroom Salon A

Seats: 40

90-minute hands-on

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

164 Stepping up STEM with TI-Nspire™ CX technology

TI-Nspire™ CX Navigator™ system

Audrey Cucci, alsucucci@gmail.com, @audreycucci, Frankfort-Schuylar Central School, Frankfort, New York, United States

Are you looking for ways to improve science, technology, engineering and math (STEM) instruction in your classroom? Come and work through STEM activities that you can use in your math classroom. Learn how to present these activities using TI-Nspire™ technology. See how these STEM activities help reach our students and get them excited about STEM careers. Learn a few tricks on how to use these activities in a flipped classroom in order to expand student learning. Let's get our students excited about STEM together.

8 - 9:30 a.m.

Crystal Ballroom Salon B

Seats: 40

90-minute hands-on

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

165 Pictures + TI-Nspire™ CX handheld + Calculator-Based Ranger 2™ motion sensor + TI-84 Plus graphing calculator = real math!

TI-Nspire™ CX Navigator™ system

John Bament, johnbament@hotmail.com, @bamentj, O'Loughlin Catholic College, Darwin, Northern Territory, Australia

With access to a multitude of digital technologies, using pictures to support the learning of various mathematical concepts has never been so easy. Students obtain a deeper understanding of what they're learning, in my experience, when they can see a picture/video of what I am explaining. We will use TI-Nspire™ technology (including the TI-Nspire™ App for iPad®) and the TI-84 family of graphing calculators with the Calculator-Based Ranger 2™ motion sensor to find the mathematical words in various pictures.

8 - 9:30 a.m.

Crystal Ballroom Salon C

Seats: 40

90-minute hands-on

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

166 Getting to the root of STEM with the TI-Nspire™ handheld

TI-Nspire™ CX Navigator™ system

Ed Roberts, edwin.roberts@swcsd.us, @FHHSRoberts, South Western City Schools, Columbus, Ohio, United States

Co-presenter: Doug Roberts

This session explores some introductory activities that you can use to ensure that your students have the necessary background skills to successfully complete more complex science, technology, engineering and math (STEM) activities. In this hands-on session, participants can become familiar with different probes and gain confidence in their use through guided inquiry, some simple data collection and analysis. Sensors will include the Calculator-Based Ranger 2™ motion sensor, the stainless-steel temperature probe and the dual-range force sensor.

8 - 9:30 a.m.

Crystal Ballroom Salon D

Seats: 40

90-minute hands-on

Beginner

General Science

167 Making the best use of TI technology in a science classroom

TI-Nspire™ CX Navigator™ system

Rob Reniewicki, rreniewicki@susd.org, Scottsdale Unified District, Phoenix, Arizona, United States

The Common Core State Standards expect students to use technology as a tool. In this science session, participants will use the TI-Nspire™ CX handheld to develop models to connect science and math concepts. During the session, participants will collect data using data-aggregation techniques. We will also create and demonstrate assessment and questioning techniques using the TI-Nspire™ CX Navigator™ software.

8 - 9:30 a.m.

Crystal Ballroom Salon E

Seats: 40

90-minute hands-on

Beginner

General Science

168 Quick but effective interactive step-by-step TI-Nspire™ activities – how to use, make and get

TI-Nspire™ CX Navigator™ system

Heidi Rudolph, hrudolph@orangecsd.org, @heidirudolph95, Orange High School, Pepper Pike, Ohio, United States

Co-presenter: Tom Reardon

See the power of having cool, helpful, interactive and colorful documents that enable your students to learn tough-to-teach ideas and concepts at their own pace. We will show how to solve quadratic equations by factoring; sets of numbers; how to do seven compass and straight-edge constructions; comparing units of length, area and volume; radicals and rational exponents; and more. We will show you how to easily create your own step by steps. Walk away with all materials ready to use immediately.

8 - 9:30 a.m.

Crystal Ballroom Salon F

Seats: 40

90-minute hands-on

Beginner

Authoring

169 Advancing science, technology, engineering and math (STEM) through systemic districtwide efforts

Kristin Brown, kristin.brown@lyfordcisd.net, Lyford Consolidated Independent School District, Lyford, Texas, United States

Lyford Consolidated Independent School District is a designated STEM school in the state of Texas. The district serves 1,500 students in rural South Texas. As a STEM district, one focus area has been to utilize technology to expand teaching and learning in all classrooms. The district has utilized Texas Instruments as a method of enhancing classroom instruction to engage students in curriculum and activities that bring mathematics to life through visual representation. The district will share techniques used to engaged students at the elementary, middle and high school levels.

8 - 9:30 a.m.

Crystal Ballroom Salon K

Seats: 40

90-minute lecture/demonstration

Beginner

Administrator

170 Programming with the TI-Nspire™ handheld

TI-Nspire™ CX Navigator™ system

Jared Despain, jared.despain@outlook.com, @mathThrasher, Canyon View High School, Cedar City, Utah, United States

Ready to take your calculator skills to the next level? Learn how to write your own programs and functions on the TI-Nspire™ CX handheld. We'll explore great ways to build on mathematical reasoning and logic by building our own code from easy-to-learn and easy-to-use functions, to more difficult algorithms, to nifty math shortcuts. Lots of physics and science formula applications as well. Be the envy of all your friends!

8 - 9:30 a.m.

Crystal Ballroom Salon L

Seats: 40

90-minute hands-on

Intermediate

Programming

172 Young mathematicians, multiple representations and the TI-10 and TI-15 Explorer™ elementary calculators

TI-15 Explorer™ elementary calculator

Tammy L. Jones, tammyjones@tljconsultinggroup.com, @TLJCG, TLJ Consulting Group LLC, Lebanon, Tennessee, United States

Many beginning primary and developing elementary mathematicians use varied representations to build understanding and express mathematical ideas. These representations are methods for communicating as well as powerful tools for thinking. Participants will experience an investigation that incorporates literature, manipulatives and technology to build new understanding and extend and deepen existing knowledge.

8 - 9:30 a.m.

Crystal Ballroom Salon N

Seats: 40

90-minute hands-on

Beginner

Elementary Math

173 Problem pearls from Park City using the TI-Nspire™ CX CAS handheld

TI-Nspire™ CX CAS handheld

Thomas Dick, tpdick@math.oregonstate.edu, Oregon State University, Corvallis, Oregon, United States

The Park City Mathematics Institute (PCMI) has included a problem-based workshop for secondary teachers for several summers. Each summer’s workshop has included a wonderful collection of interwoven mathematics problems that collectively tell a compelling mathematical story. In this session, we will take a look at some favorite problems from past PCMI sessions, taking special note of the ways in which the TI-Nspire™ CX CAS handheld can provide new insights into marvelous mathematics.

8 - 9:30 a.m.

Canary 1

Seats: 80

90-minute lecture/demonstration

Intermediate

Computer Algebra System (CAS)

174 Using the TI-Nspire™ CX CAS handheld to clarify the understanding of geometric transformations

TI-Nspire™ CX CAS handheld

Zalman Usiskin, z-usiskin@uchicago.edu, University of Chicago (emeritus), Winnetka, Illinois, United States

Co-presenter: Ray Klein

The Common Core State Standards for Mathematics (CCSSM) require transformations as an essential part of the geometry curriculum. Even if you do not agree with the CCSSM overall, the presenters think you should agree with this aspect of the CCSSM. In this session, we will show how the TI-Nspire™ CX CAS handheld enables the use of geometric transformations to deepen student understanding of functions, congruence and similarity, and of the transformations themselves. (For the hands-on portion of this session, we suggest some facility with Cabri™ geometry on the TI-Nspire™ CX CAS handheld.)

8 - 9:30 a.m.

Canary 2

Seats: 80

90-minute lecture/demonstration

Intermediate

Geometry

175 The TI-84 Plus family of graphing calculators – strategies and activities for your mathematics classroom

TI-84 Plus CE graphing calculator

Ruth Casey, ruthcasey@aol.com, @rcaseyky, Frankfort, Kentucky, United States

Co-presenter: Margaret Bambrick

Join us as we explore concepts from algebra to precalculus. We will use multiple representations in activities designed to deepen student understanding of mathematical topics such as linear functions, systems of equations, zeroes of polynomials, mathematical modeling and more. Come see how using photographs and images with the TI-84 Plus CE graphing calculator can help make real-world connections to mathematics in your classroom.

8 - 9:30 a.m.

Canary 3

Seats: 80

90-minute hands-on

Beginner

Algebra I

176 Notice and note using the TI-Nspire™ CX technology: doodle to show what you know

TI-Nspire™ CX Navigator™ system

Jill Gough, jplgough@gmail.com, @jgough, Trinity School, Atlanta, Georgia, United States

Co-presenter: Jennifer Wilson

How might we encourage students to show thinking, uncovering questions and misconceptions? What if we explore conceptual development of tough-to-teach/learn topics using technology and visual note-taking? TI-Nspire™ technology helps learners *grasp the math*, but how are we coaching learners to show what they know? Explore a dual approach to building conceptual understanding using TI-Nspire™ technology and sketch noting for comprehension. We will track content using imagery, color and typography to experience how creative note-taking can change the way learners understand information. Examples of student work and reflections will give evidence of the impact on learning.

8 - 9:30 a.m.

Canary 4

Seats: 80

90-minute hands-on

Beginner

Algebra I

364 We can do the *nae nae* in mathematics too!

TI-84 Plus CE graphing calculator

Kathleen McKinley, domath4all@gmail.com, Temple University, Philadelphia, Pennsylvania, United States

Participate in activities that encourage students to celebrate success in mathematics with technology-assisted lessons. Each lesson will enable students to experience and learn in a fun and motivating environment. Work in cooperative groups to complete statistical tasks verifying the truth about product claims. Gather data, analyze, and create data displays in multiple formats. Modeled with cooperative group strategies. Access to all resources provided. Activities are compatible with TI-84 Plus graphing calculators, TI-73 Explorer™ graphing calculators and TI-Nspire™ technology.

8 - 9:30 a.m.

North Tower: Aruba

Seats: 36

90-minute hands-on

Intermediate

Statistics

365 Should I foul him or not? Using TI-Nspire™ technology to teach conditional and compound probability

TI-Nspire™ CX Navigator™ system

Tracy Wingert, tracy.wingert950103@gmail.com, @TracyWingert, Le Mars Community School District, Le Mars, Iowa, United States

This session will use TI-Nspire™ technology in the context of time running out in a basketball game to determine what is the best course of action.

8 - 9:30 a.m.

North Tower: Bahamas

Seats: 36

90-minute hands-on

Beginner

Statistics

B Statistics symposium: 10 really cool things to teach in statistics

TI-Nspire™ CX handheld, TI-84 Plus CE graphing calculator

Gail Burrill, burrill@msu.edu, Dallas, Texas, United States

Simulation can be a key strategy for developing an understanding of core statistical concepts, particularly those related to introductory inference and making reasoned judgments. This session will introduce activities that lead to simulation-based inference in ways that are *laddered* to develop a learning progression of key concepts across grades 6-12, and make explicit why these ideas are fundamental for everyone to learn.

8 a.m. - 5:30 p.m.

North Tower: Harbor Beach

Seats: 100

All-day

Beginner

Statistics

177 Building a foundation for AP* Statistics in your algebra courses

TI-Nspire™ CX Navigator™ system

Thomas Mariano, tom.mariano@greececsd.org, Greece Central School District, Rochester, New York, United States

Using real data and interactive TI-Nspire™ CX handhelds or TI-84 Plus graphing calculators, your students can learn the difference between mathematical and statistical thinking while getting better at both. Experience easy, engaging, hands-on activities that prepare students for college-level statistics while reinforcing important algebraic and modeling concepts and skills. Activities will be correlated to the Common Core State Standards and Progression for Statistics and Probability.

9:45 - 10:45 a.m.

Washington

Seats: 40

60-minute hands-on

Intermediate

Algebra I

178 The TI-84 Plus family of graphing calculators supports CCSS for Mathematical Content and Mathematical Practice

TI-84 Plus CE graphing calculator

Rebecca Caison, rbcaison@mac.com, @RebeccaBCaison, Mebane, North Carolina, United States

Explore using the TI-84 Plus family of graphing calculators to engage students in becoming more proficient in the Common Core State Standards for Mathematical Practice while meeting the goals of the content standards. We will examine one or more high-level tasks to meet the goals of this session.

9:45 - 10:45 a.m.

Tampa

Seats: 40

60-minute hands-on

Beginner

Algebra I

180 The TI-Nspire™ CX technology and Pythagorean triples

TI-Nspire™ CX Navigator™ system

Denny St. John, stjoh1d@cmich.edu, @DennyStJohn, Central Michigan University, Mount Pleasant, Michigan, United States

Co-presenter: Andrea Mika

Come explore and generate unique Pythagorean triples. We will find out how geometry and algebra intersect to produce right triangles. This presentation will include applications, activities and opportunities to share ideas.

9:45 - 10:45 a.m.

San Francisco

Seats: 40

60-minute hands-on

Beginner

Algebra II

181 The power of visualization in CCSS algebra II

TI-Nspire™ CX Navigator™ system

Howard Stern, hastern@gmail.com, DeWitt Clinton High School, Bronx, New York, United States

Visualization is so important in helping students grasp concepts underlying the math we teach. We will explore a few TI-Nspire™ CX activities that have been helpful in class this year.

9:45 - 10:45 a.m.

San Antonio

Seats: 40

60-minute hands-on

Beginner

Algebra II

183 History and anatomy of the golden ratio

TI-Nspire™ CX Navigator™ system

Scott Washburn, scott_washburn@redlands.k12.ca.us, @SWashburn23, Redlands East Valley High School, Redlands, California, United States

We will be exploring how the ancient Greeks knew about and used the golden ratio in their art as well their architecture. In addition, we will be constructing a golden rectangle in the Geometry application with the TI-Nspire™ CX handheld. There might even be time for a scavenger hunt, where we find golden rectangles hidden in the world we live in everyday.

9:45 - 10:45 a.m.

New Orleans

Seats: 50

60-minute hands-on

Beginner

Geometry

184 Why are air-conditioning ducts not triangular? Find out using the TI-84 Plus Silver Edition graphing calculator!

TI-84 Plus Silver Edition graphing calculator

Jim Swick, jim_swick@pba.edu, Palm Beach Atlantic University, West Palm Beach, Florida, United States

Co-presenter: Marsha Guntharp

If you look in your attic, you will see trusses that are triangularly shaped. However, the ductwork passing through them is invariably square. Wouldn't triangular ductwork fit better? We will use the TI-84 Plus Silver Edition graphing calculator's interactive geometry capabilities to see if there is some logical reason for this conundrum.

9:45 - 10:45 a.m.

Los Angeles

Seats: 50

60-minute hands-on

Beginner

Geometry

185 Art in the coordinate plane using the TI-Nspire™ CX technology or TI-84 Plus graphing calculator (a new twist on turkey hands)

TI-Nspire™ CX Navigator™ system

Naomi Kokason, mrskoke@rocketmail.com, Los Angeles Unified School District, Winnetka, California, United States

Whether this is your first introduction to the coordinate plane or you just want to review, this lesson is a fun way to engage students, learn to use some basic features of the handheld devices, and create student work that you can use to decorate your classroom. We will use features including lists, scatter plots, window settings, screen captures and more, with instructions for both the TI-Nspire™ CX handhelds and TI-84 Plus graphing calculator.

9:45 - 10:45 a.m.

Denver

Seats: 40

60-minute hands-on

Beginner

Middle Grades Math

186 Performance tasks in the middle school math classroom using the TI-Nspire™ CX technology

TI-Nspire™ CX Navigator™ system

Rachael Smilowitz, rachael_smilowitz@charleston.k12.sc.us, Charleston County School District, Charleston, South Carolina, United States

Performance tasks are the new wave in standardized assessments. This session will present several different sample performance tasks that a middle-level math teacher can use in their classroom. Attendees will also be able to use TI-Nspire™ software to explore different performance tasks as well as to assess student understanding. Come to this hour-long session and walk away with several different performance tasks to use immediately in your classroom.

9:45 - 10:45 a.m.

Chicago

Seats: 40

60-minute hands-on

Beginner

Middle Grades Math

187 Inspire the process: using TI technology to enhance NCTM process standards

TI-Nspire™ CX Navigator™ system

Maggie Mary, maggiemary@yahoo.com, Judson Independent School District, Schertz, Texas, United States

What are the National Council of Teachers of Mathematics (NCTM) Principles and Standards and how do I teach them? In this session, you will learn how to use TI-Nspire™ technology to teach the NCTM Principles and Standards. We will work through TI-Nspire™ student activities and focus on questioning strategies to enhance student learning.

9:45 - 10:45 a.m.

Grand Ballroom Salon 1

Seats: 60

60-minute hands-on

Beginner

General Math

188 Let them teach (and understand more): Using TI-Nspire™ CX technology for student-designed lessons

TI-Nspire™ CX Navigator™ system

Daniel Wilkie, dwilkie@greenville.k12.sc.us, Woodmont International Baccalaureate High School, Piedmont, South Carolina, United States

What is one of the best ways for your students to learn and understand the math that you are teaching? Have them design a lesson and teach other students. Let me show you how I use TI-Nspire™ technology and some free recording software to get students involved in almost every lesson, and how it helps not only my students but every math student at my school. I will demonstrate how each of my students designs one lesson per quarter and posts them for all to see and benefit from. Sample lessons will be shared with all participants.

9:45 - 10:45 a.m.

Grand Ballroom Salon 2

Seats: 60

60-minute hands-on

Intermediate

General Math

189 Modeling in three acts with the TI-84 Plus graphing calculator

TI-84 Plus CE graphing calculator

Linda Griffith, lindag@uca.edu, @LindaGriffith5, University of Central Arkansas, Quitman, Arizona, United States

Modeling is an important component of all secondary mathematics courses. In this session, we will explore some 3 Act Math modeling tasks using the TI-84 Plus CE graphing calculator. Dan Meyer first introduced the 3 Act Math modeling task several years ago. These types of tasks increase the levels of student engagement in mathematics classrooms and provide teachers with valuable insights into student thinking, allowing them to modify their instruction to align with student perceptions.

9:45 - 10:45 a.m.

Grand Ballroom Salon 3

Seats: 60

60-minute hands-on

Intermediate

General Math

190 TI-84 Plus CE graphing calculator in an applied calculus course

TI-84 Plus CE graphing calculator

Donald Griffin, don.griffin@gvltec.edu, Greenville Technical College, Greenville, South Carolina, United States

In this session, learn how to use the MathPrint™ features and color to graph derivatives, and to visualize the relative extrema and inflection points. We will look at picking the best model and then model it on the calculator. In addition, we will use some programs to find differences, area under a curve and slopes of secant lines, which I can give to you.

9:45 - 10:45 a.m.

Grand Ballroom Salon 4

Seats: 60

60-minute hands-on

Beginner

Calculus

191 Using the TI-Nspire™ App for iPad® to understand pi

TI-Nspire™ App for iPad®

Ann Wheeler, awheeler2@twu.edu, Texas Woman's University, Aubrey, Texas, United States

During this session, participants will learn how to use the measurement and picture-taking capabilities of the TI-Nspire™ App for iPad® to understand classic hands-on pi lessons in new and innovative ways. Participants will not only complete hands-on activities involving pi, but also similar activities using the TI-Nspire™ App for iPad® on supplied iPad® mobile digital devices. Mathematics concepts covered include diameter, circumference, radius, ratio and pi.

9:45 - 10:45 a.m.

Grand Ballroom Salon 5

Seats: 80

60-minute hands-on

Beginner

Middle Grades Math

192 The legacy of leadership: a generation of leaders

TI-Nspire™ CAS App for iPad®

Stephanie Ogden, sogden.so@gmail.com, @SoSogden, L&N STEM Academy/Knox County Schools, Knoxville, Tennessee, United States

Great teachers understand that they must ultimately transfer learning to learners. Great instructional leaders likewise understand that they must empower a faculty of leaders. Hear how one faculty is working together to create an innovative, transdisciplinary curriculum designed to activate learners ready for college, career and life. See how the TI-Nspire™ CAS App for iPad® can help social studies and English teachers deliver algebra, geometry, statistics and calculus activities that enrich learning in the humanities. Share how school and system leaders can support a culture of collaboration, innovation and leadership.

9:45 - 10:45 a.m.

Grand Ballroom Salon 6

Seats: 80

60-minute lecture/demonstration

Intermediate

Administrator

193 The power of the PublishView™ feature

TI-Nspire™ CX Navigator™ system

Judith Olson, jkolson@hawaii.edu, Honolulu, Hawaii, United States

Co-presenter: Melfried Olson

The PublishView™ feature could be considered the biggest secret of TI-Nspire™ Teacher Software and TI-Nspire™ Student Software. Using the PublishView™ feature, you can create lessons and activities using text, images, videos and embedded URLs as well as .tns documents. Teachers can prepare these from their own curriculum materials and resources or use online resources from TI's website. Participants will work with lessons formatted in PV and see the power of the PublishView™ feature with hands-on activities. As we explore, we will show how to enhance or modify the lessons or create additional lessons.

9:45 - 10:45 a.m.

Grand Ballroom Salon 9

Seats: 30

60-minute hands-on

Beginner

Algebra I

194 Easy first steps to using the TI-Nspire™ CX Navigator™ system

TI-Nspire™ CX Navigator™ system

Della Highman, dellahighman@hotmail.com, South-Western City Schools, Columbus, Ohio, United States

Co-presenter: Kari Craddock

Come see how easy it is to get started using the TI-Nspire™ CX Navigator™ system in your classroom. Learn how to use the Quick Poll feature for formative assessments, create documents for your students to explore and much more! Find out how to get your students more engaged in your classroom.

9:45 - 10:45 a.m.

Grand Ballroom Salon 10

Seats: 30

60-minute hands-on

Beginner

Formative Assessment

195 Series-ly? Exploring series using the TI-Nspire™ CX technology

TI-Nspire™ CX Navigator™ system

Patricia Brooks, pbrooks@san.rr.com, Mount Carmel High School/Poway Unified School District, San Diego, California, United States

Participants will explore the convergence or divergence of sequences and series using the TI-Nspire™ CX technology.

9:45 - 10:45 a.m.

Grand Ballroom Salon 11

Seats: 60

60-minute hands-on

Beginner

Calculus

196 Using the TI-Nspire™ CX Navigator™ system to assess student understanding

TI-Nspire™ CX Navigator™ system

Ron Albright, ronalbright1@gmail.com, Winter Park High School, Winter Park, Florida, United States

Co-presenter: Don Worcester

Participants will see the power of the TI-Nspire™ CX Navigator™ system for formative and summative assessments. Provide your students instant feedback, monitor their progress, and differentiate instruction. Come and familiarize yourself with a valuable tool that you can use every day.

9:45 - 10:45 a.m.

Grand Ballroom Salon 12

Seats: 60

60-minute lecture/demonstration

Beginner

Assessment

197 Made you look! Analyzing student work with formative assessment

TI-Nspire™ CX Navigator™ system

Monique Chatman, msmoniquechatman@yahoo.com, @Monique_Chatman, Fort Bend Independent School District, Fresno, Texas, United States

In this session, we will use the TI-Nspire™ CX Navigator™ system as a formative assessment tool to gather data. Participants will look at the data and student work to determine the appropriate tools to persevere in problem-solving, communicate mathematical ideas, and critique the reasoning of others using precise mathematical language.

9:45 - 10:45 a.m.

Grand Ballroom Salon 13

Seats: 60

60-minute hands-on

Beginner

Formative Assessment

199 Math and science look at the thermometer

TI-84 Plus Silver Edition graphing calculator

Randy Reese, tcauffield@att.net, Palm Beach Central High School, Wellington, Florida, United States

Co-presenter: Tom Cauffield

Come watch the collaboration to see how to draw relationships, regressions, functions and fun out of data from a simple temperature probe and a TI-84 Plus Silver Edition graphing calculator.

9:45 - 10:45 a.m.

Crystal Ballroom Salon A

Seats: 40

60-minute lecture/demonstration

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

200 The TI-84 Plus graphing calculator in secondary math, in preparation for a successful AP* Calculus

TI-84 Plus CE graphing calculator

Fan Disher, fadisher@bellsouth.net, Mandeville High School, Mandeville, Louisiana, United States

Calculus readiness: Are your students being prepared in grades 9-11? Learn some of the concepts and TI-84 Plus graphing calculator family skills that students should learn and master in underclass secondary math classes to prepare them for success in Advanced Placement calculus.

9:45 - 10:45 a.m.

Crystal Ballroom Salon B

Seats: 40

60-minute lecture/demonstration

Intermediate

Precalculus

201 Biology in the real world

TI-Nspire™ CX Navigator™ system

Louise Chapman, lchapman@volusia.k12.fl.us, @LouiseC37931274, Volusia County Schools, Deland, Florida, United States

Co-presenter: David Young

Collect data from the real world or from a fake estuary in your classroom. Use sensors you may not have used before or in this way. Develop a way for students to see the real-life connections from science to the methods to analyze data used in a math class. Link the ecology standards in biology to probe exciting ways to engage students in biology and math.

9:45 - 10:45 a.m.

Crystal Ballroom Salon C

Seats: 40

60-minute hands-on

Beginner

Biology

202 Identifying weak acids by pKa with TI-Nspire™ handheld technology

TI-Nspire™ CX handheld

Roxane Ohl, rohl@aquaphoenixsci.com, AquaPhoenix Scientific, York, Pennsylvania, United States

Combine the TI-Nspire™ CX handheld with Kemtec's Advanced Placement (AP*) chemistry kits to perform half-titrations on weak acids based on pH, to determine pKa values of weak acids, to confirm the identities of weak acids, and to help students understand the relationship between pH and pKa. Experience hands-on applications partnering TI technology, Vernier® probeware and AP* Chemistry.

9:45 - 10:45 a.m.

Crystal Ballroom Salon D

Seats: 40

60-minute hands-on

Intermediate

Chemistry

203 What does the new TI-84 Plus CE graphing calculator offer to my science classroom?

TI-84 Plus CE graphing calculator

Jacklyn Bonneau, bonneau@wpi.edu, Massachusetts Academy, North Grosvenordale, Connecticut, United States

We will explore the new features of the TI-84 Plus CE graphing calculator as they specifically relate to teaching middle and high school science. We will explore topics such as data collection and analysis, graphing and solver. Teachers will walk away with a better understanding of the power of these tools and how to better utilize them for student learning in their classrooms.

9:45 - 10:45 a.m.

Crystal Ballroom Salon E

Seats: 40

60-minute hands-on

Beginner

General Science

205 Putting 21st-century technology in students' hands: the Clover Park School District story

Maria Flores, mflores@cloverpark.k12.wa.us, Clover Park School District, University Place, Washington, United States

In this session, we will share with you how we partnered with Texas Instruments to put 21st-century technology in students' hands. Learn about the highlights, successes and challenges of our journey. Clover Park is committed to advancing quality science, technology, engineering and math (STEM) education. This means creating a fundamentally different approach to teaching and learning, particularly in science and mathematics. By providing intensive, customized professional development for educators, we continually work to enhance rigor and STEM skills development for students and provide explicit connections to higher education, business and industries.

9:45 - 10:45 a.m.

Crystal Ballroom Salon K

Seats: 40

60-minute lecture/demonstration

Beginner

Administrator

206 Tackling the new SAT* with the TI-Nspire™ CX CAS handheld

TI-Nspire™ CX Navigator™ system

Michael Buescher, michael@mbuescher.com, Hathaway Brown School, Shaker Heights, Ohio, United States

Computer algebra systems (CAS), including the TI-Nspire™ CX CAS handheld and earlier TI models, are still allowed on the calculator section of the new SAT*. While no question requires it, the CAS capabilities and multiple representations available on the TI-Nspire™ CX CAS handheld allow students to solve questions using a wider variety of approaches. Explore many sample SAT* questions and the different options that CAS-capable students can leverage.

9:45 - 10:45 a.m.

Crystal Ballroom Salon L

Seats: 40

60-minute hands-on

Intermediate

Computer Algebra System (CAS)

207 Dynamic dissections: building persuasive polygon area formulas via manipulation and CAS (Computer Algebra System)

TI-Nspire™ CX Navigator™ system

Jon Davis, jon.davis@wmich.edu, Western Michigan University, Kalamazoo, Michigan, United States

Participants at this session will learn how to use the TI-Nspire™ CX CAS technology to provide their students opportunities to develop area formulas for different polygons (such as parallelograms). Participants will receive a set of documents that they can use to engage their students in electronically dissecting and manipulating these objects, reconfiguring them into figures for which they already possess area formulas. Participants will develop area formulas on the basis of their manipulations and use the computer algebra system (CAS) capabilities of the TI-Nspire™ CX CAS technology to simplify their formulas.

9:45 - 10:45 a.m.

Crystal Ballroom Salon M

Seats: 40

60-minute lecture/demonstration

Intermediate

Computer Algebra System (CAS)

208 Get rid of the number blues with the TI-15 Explorer™ elementary calculator

TI-15 Explorer™ elementary calculator

Marsha Burkholder, teamburk@yahoo.com, Columbus City Schools, Columbus, Ohio, United States

Co-presenter: Chris Ruda

In this hands-on session, you will use the TI-15 Explorer™ elementary calculator to explore how this technology can help students build number sense. See how through questions, students can explore and develop math concepts in the elementary classroom.

9:45 - 10:45 a.m.

Crystal Ballroom Salon N

Seats: 40

60-minute hands-on

Beginner

Elementary Math

209 The remarkable computer algebra system: defined, applied and refined

TI-Nspire™ CX CAS handheld

Candace Terry, candace.terry@tcsedu.net, Tullahoma High School, Tullahoma, Tennessee, United States

Have you ever wondered what the computer algebra system (CAS) represents and why it is prohibited on some assessments? We will define CAS, with all its attributes and features. Learn about how the symbolic algebra feature replaces many algorithms and hand calculations learned in algebra classes. Begin to understand the nature of CAS and how it can affect algebra teachers' content and pedagogy. Our discussion will include sharing thoughts on the kinds of procedures essential for hand calculations versus procedures that can be outsourced to the TI-Nspire™ CX CAS handheld. We will demonstrate examples; bring your CAS device to follow along!

9:45 - 10:45 a.m.

Canary 1

Seats: 80

60-minute lecture/demonstration

Beginner

Computer Algebra System (CAS)

210 AP* Calculus, the new frameworks and technology

TI-Nspire™ CX Navigator™ system

Vicki Carter, carterv@bellsouth.net, @vickimcarter, West Florence High School/Florence School District One, Florence, South Carolina, United States

The new Advanced Placement (AP*) Calculus Framework and Mathematical Practices for AP* Calculus provide opportunities to explore calculus with technology. In this session, we will look at some of the new topics for 2016-2017 and how the use of technology will enhance learning.

9:45 - 10:45 a.m.

Canary 2

Seats: 80

60-minute hands-on

Intermediate

Calculus

211 Overview of the TI-30Xa scientific calculator

TI-30Xa scientific calculator

Beth Smith, bethinghamsmith@gmail.com, @bismith60, Jacksonville, Florida, United States

Let's spend some time getting to know the TI-30Xa scientific calculator, which students may use on the Florida Standards Assessment. Learn how classroom use helps students become familiar with the TI-30Xa scientific calculator and how to use the calculator as an investigation and discovery tool. Walk away with new knowledge and ideas to help your students be more successful.

9:45 - 10:45 a.m.

Canary 3

Seats: 80

60-minute hands-on

Beginner

Algebra I

212 Ten minutes of code

TI-84 Plus CE graphing calculator

John Hanna, jehanna@optonline.net, Hopatcong, New Jersey, United States

Take a quick tour of the new collection of introductory programming resources now available from Texas Instruments titled *Ten Minutes of Code*. This is a collection of short lessons for students to learn the basics of programming using TI Basic language on the TI-84 Plus family of graphing calculators. No teacher experience necessary! These activities are designed to be self-guided and the teacher notes contain support material, too. Get your students involved in programming the easy way!

9:45 - 10:45 a.m.

Canary 4

Seats: 80

60-minute hands-on

Beginner

Programming

366 Time after time: analyzing quantitative data

TI-Nspire™ CX Navigator™ system

Vonda Morris, vhmorris@volusia.k12.fl.us, Spruce Creek High School, Port Orange, Florida, United States

Participants will calculate an elapsed time. Using the TI-Nspire™ CX technology, participants will create a dot plot, histogram and box plot of the combined data. We will discuss shape, center, spread and outliers, along with which measures of center and spread are most appropriate.

9:45 - 10:45 a.m.

North Tower: Aruba

Seats: 36

60-minute hands-on

Beginner

Statistics

367 Graphical representation for the statistical interpretation of data

TI-Nspire™ CX Navigator™ system

Rafael R. Canales Pastrana, rrcanales@bayamon.inter.edu, Interamerican University of Puerto Rico, Bayamon, Puerto Rico

Participants will work on different graphical representations on the TI-Nspire™ handheld. We will perform the analysis with data relevant to the participant. After each graphical representation of each data set, we will perform a statistical interpretation and a comparison between different possible representations.

9:45 - 10:45 a.m.

North Tower: Bahamas

Seats: 36

60-minute lecture/demonstration

Beginner

Statistics

381 Adventures in flipping a math class

TI-Nspire™ CX Navigator™ system

Joel Evans, jevans3@hatboro-horsham.org, @joelevanshhhs, Hatboro-Horsham High School, Horsham, Pennsylvania, United States

This session will focus on how to use the flipped model in a math class. I have used this approach in a variety of math classes, and I will share what I have learned about creating and publishing videos and what TI activities and technology I use to enhance my flipped classroom. Over the last three years, all of my statistics students have passed the Advanced Placement exam using this model. You will leave this session ready to start flipping.

9:45 - 10:45 a.m.

North Tower: Grand Cayman

Seats: 36

60-minute lecture/demonstration

Intermediate

Statistics

213 Flipping the TI-84 Plus graphing calculator classroom: what did we learn?

Andrea Mika, mika@jesuitnola.org, Jesuit High School, New Orleans, Louisiana, United States

In this session, we will share what we learned by flipping our courses this year. One of us has been using the TI-84 Plus graphing calculator and the other used the TI-Nspire™ CAS handheld. We both used TI-SmartView™ emulator for TI-Nspire™ technology to produce video along with video-capture software. We will answer these questions: What has worked? What did not work? What are the challenges? What's next for us?

11 a.m. - noon

Washington

Seats: 40

60-minute hands-on

Beginner

Algebra I

214 Starfish family transformed with the new TI-84 Plus CE graphing calculator

TI-84 Plus CE graphing calculator

Barbara Ward, bward@misd.org, @docward93, Montgomery High School, Montgomery, Texas, United States

Let's create Patrick Star and his family using transformations on the new TI-84 Plus CE graphing calculator. Participants will create a connected line plot on a starfish image and then create the whole starfish family using transformations and functions. In addition, we will use line segments, line plots and the new functions on the TI-84 Plus CE graphing calculator, including QuickPlot and Fit-EQ to explore relations and their inverses. Join us to see how color has enhanced the TI-84 Plus Silver Edition graphing calculator.

11 a.m. - noon

Tampa

Seats: 40

60-minute hands-on

Beginner

Algebra I

215 Stroop test data collection will have you seeing colors

TI-84 Plus Silver Edition graphing calculator

Andrew Benzing, abenzin@wssd.org, @steamereater, Wallingford Swarthmore School District, Wallingford, Pennsylvania, United States

Green, blue, blue, black red ... errrrr ... try again! Come and experience a historical psychology experiment that generates meaningful data for the students to consider how they think, while giving you insight into their level of understanding on the concept of rate. A wonderful tie-in to statistics is included. Don't let your eyes deceive you. We will use the TI-84 Plus Silver Edition graphing calculator, with all levels of users welcomed.

11 a.m. - noon

St. Louis

Seats: 40

60-minute hands-on

Beginner

Algebra I

216 It's all about the base: exploring exponential and logarithmic functions with the TI-Nspire™ CX Navigator™ system

TI-Nspire™ CX Navigator™ system

Katelyn Long, katelynlong@claytonschoools.net, School District of Clayton, Richmond Heights, Missouri, United States

Co-presenter: Annie Katz

In this hands-on session, participants will focus on exponential and logarithmic functions. This session will investigate the graphs of functions with all transformations and solve equations involving exponential and logarithmic functions, emphasizing the idea that they are inverse operations.

11 a.m. - noon

San Francisco

Seats: 40

60-minute hands-on

Beginner

Algebra II

217 Exploring STEM activities with the TI-Nspire™ CX handhelds and the Calculator-Based Ranger 2™ (CBR2) motion sensor

TI-Nspire™ CX Navigator™ system

Peggy McVay, mcvaym@greatoaks.com, Great Oaks - Live Oaks, Milford, Ohio, United States

Co-presenter: Stephanie Rosselot

Participants will use TI-Nspire™ technology-based calculators and the Calculator-Based Ranger 2™ motion sensor to explore activities that actively engage students while helping them make connections between math and science Common Core State Standards. Participants will walk away with several activities, including handouts with step-by-step directions for easy implementation in your classroom.

218 Implementing CCSSM statistics standards into algebra

TI-84 Plus Silver Edition graphing calculator

Todd Sikora, tsikora@d125.org, Adlai E. Stevenson High School, Lincolnshire, Illinois, United States

This session will summarize experiences we had while implementing Common Core State Standards for Mathematics in an algebra I course. Additionally, we will emphasize the Common Core State Standards for Mathematical Practice.

219 Guess who's back, back again, TI-84 Plus calculators are back, tell a friend

TI-84 Plus Silver Edition graphing calculator

Levi Straight, ljstraight@bcps.k12.md.us, @straightupmath, Baltimore City Public Schools, Cockeysville, Maryland, United States

The Partnership for Assessment of Readiness for College and Careers (PARCC) online exam uses ExamCalc™ software for the TI-84 Plus graphing calculator. Participants will experience classroom-ready activities in geometry and algebra II, with strategies for implementation using the TI-84 Plus graphing calculator to build student proficiency in the math concepts and with the technology.

220 The happiest geometry place on earth

TI-Nspire™ CX Navigator™ system

Pamela Baker, pamela.baker@fayar.net, Fayetteville High School/Fayetteville Public Schools, Fayetteville, Arkansas, United States

Transformational geometry is the glue that brings Common Core State Standards geometry to life. The transformation concepts of reflection, rotation, translation, dilation and vectors come alive with Pixar™, Walt Disney Studios® and The Wizarding World of Harry Potter™. This session will explore TI-Nspire™ CX Navigator™ system activities used in all levels of the geometry classroom, including special education co-taught geometry and pre-Advanced Placement geometry.

221 Using applications, motion detectors and movie clips in the middle grades

TI-84 Plus Silver Edition graphing calculator

Miguel Garcia, garzac@comcast.net, Granite School District, Salt Lake City, Utah, United States

Participants will use the TI-84 Plus Silver Edition graphing calculator to examine probability, a sample space and central tendency, as well as the Calculator-Based Ranger™ motion detector to analyze linear data in real time. Teachers attending this session will use movie clips and literature to explore exponential, linear and nonlinear data. We will provide a CD containing all activities.

224 What's new with the TI-Nspire™ CX technology?

TI-Nspire™ CX Navigator™ system

Elena Smirnova, e-smirnova@ti.com, Dallas, Texas, United States

Have you heard about the latest features for the TI-Nspire™ CX handheld and TI-Nspire™ CX Navigator™ system? Come spend an hour with us and get your hands on some of the coolest new features. You'll be amazed!

11 a.m. - noon

San Antonio

Seats: 40

60-minute hands-on

Intermediate

Algebra II

11 a.m. - noon

New York

Seats: 50

60-minute hands-on

Beginner

Algebra I

11 a.m. - noon

New Orleans

Seats: 50

60-minute hands-on

Beginner

Geometry

11 a.m. - noon

Los Angeles

Seats: 50

60-minute hands-on

Beginner

Geometry

11 a.m. - noon

Denver

Seats: 40

60-minute hands-on

Beginner

Middle Grades Math

11 a.m. - noon

Grand Ballroom Salon 2

Seats: 60

60-minute hands-on

Beginner

General Math

225 Question everything!

TI-Nspire™ CX Navigator™ system

Ellen Browne, esbrowne@pomfretschool.org, @EllenSBrowne, Pomfret School, Pomfret, Connecticut, United States

Co-presenter: Brad Posnanski

Come learn how to incorporate the art of questioning using the Quick Poll feature on the TI-Nspire™ CX Navigator™ system. How can you get the students to do more of the work and not hide in class? Watch the discussions begin the minute the results go up, and see how to quickly assess students and identify those in need. A rookie and an experienced TI-Nspire™ Navigator™ classroom learning system user will demonstrate strategies to accomplish a discussion-based questioning class with the help of technology.

226 Confessions of a former nonuser

TI-Nspire™ CX Navigator™ system

Andrew Amstutz, amstutz24@hotmail.com, Franklin Heights High School/Southwestern City Schools, Columbus, Ohio, United States

I have been a nonbeliever in the use of technology for most of my educational career. I understood it, but never really used it to its fullest potential. After many years, I decided to make an attempt to incorporate the TI-Nspire™ technology and the TI-Nspire™ CX Navigator™ system into my classroom. The purpose of this session is to show and share with you how I have begun implementing TI-Nspire™ technology in my classroom. I hope you leave seeing how easy it can be and the impact it can have in the classroom.

227 Flipping through transformations: Using TI-Nspire™ App for iPad® and/or the TI-84 Plus C Silver Edition graphing calculator

TI-Nspire™ App for iPad®

Holly Siebert, hsiebert@optonline.net., Roy C. Ketcham High School/Wappingers Central School District, Wappingers Falls, New York, United States

After studying function topics and transformations, this project brings the real world in with the TI-Nspire™ App for iPad®. Using photos as a backdrop, students place graphs of functions and relations to model pictures. Subsequent conversations about the pictures and how they can make their math match the picture are where the learning takes place. This project may be a fun follow-up to a chapter on transformations. The conversations and the math talk between students is priceless learning in an environment hard to replicate because it is of their own creation, as they contribute the photos!

228 Building Concepts: ratios and proportional relationships

TI-Nspire™ App for iPad®

Daniel Ilaria, dilariaj@msn.com, West Chester University of Pennsylvania, Chester Springs, Pennsylvania, United States

Co-presenter: Michelle Rinehart

The Common Core State Standards (CCSS) describe the coherence and connection of mathematics through the grade levels. In this session, we'll explore free lesson resources that follow the CCSS Progression on Ratios and Proportional Relationships. Learn how to use interactive technology to engage students and provide new ways to think about and discuss mathematics.

11 a.m. - noon

Grand Ballroom Salon 3

Seats: 60

60-minute hands-on

Beginner

General Math

11 a.m. - noon

Grand Ballroom Salon 4

Seats: 60

60-minute lecture/demonstration

Beginner

General Interest

11 a.m. - noon

Grand Ballroom Salon 5

Seats: 80

60-minute hands-on

Advanced

Precalculus

11 a.m. - noon

Grand Ballroom Salon 6

Seats: 80

60-minute hands-on

Beginner

Middle Grades Math

229 Modeling activities using TI-Nspire™ CX technology for exploring representations and behaviors of linear functions

TI-Nspire™ CX Navigator™ system

Melfried Olson, melfried@hawaii.edu, Honolulu, Hawaii, United States

Co-presenter: Judith Olson

The concept of function is essential in algebra and considered by many the most important concept in all of mathematics. Because functions are mathematical tools used to describe relationships among variable quantities, they are at the core of the problem-solving process. By introducing functions first as models of relationships, students can transition to an abstract functional representation of the relationships between variables. This transition can be developed through lessons that lend themselves to modeling and emphasize the function concept. In this session, we will explore lessons from *A Modeling Approach to Algebra* involving linear, quadratic and exponential functions.

11 a.m. - noon

Grand Ballroom Salon 9

Seats: 30

60-minute hands-on

Beginner

Algebra I

230 An introductory tour of TI-Nspire™ CX Teacher Software

TI-Nspire™ CX Navigator™ system

Ron Kennedy, kennedy.ronj@gmail.com, Edmonton Catholic Schools, Edmonton, Canada

Co-presenter: Stephanie MacKay

A first-time presenter will provide a rapid startup of the TI-Nspire™ Teacher Software in the mathematics classroom. Participants will be focused on the document-based approach and different operational modes, reinforcing the capabilities of TI-Nspire™ Teacher Software in mathematics instruction.

11 a.m. - noon

Grand Ballroom Salon 10

Seats: 30

60-minute hands-on

Beginner

General Math

231 Calculus and algebra class activities with the TI-Nspire™ CX handheld

TI-Nspire™ CX handheld

Bozenna Graham, bozenna.graham@wesleycollege.net, Wesley College, Glen Waverley, Victoria, Australia

The session will present class activities that introduce difficult calculus and algebra concepts using the TI-Nspire™ CX handheld and TI-Nspire™ Navigator™ system. We will also present assessment tasks. Some of the presented material will apply to topics taught in International Baccalaureate mathematics higher level and standard level.

11 a.m. - noon

Grand Ballroom Salon 11

Seats: 60

60-minute hands-on

Intermediate

Calculus

232 Assessment uses in a TI-Nspire™ CX Navigator™ system classroom

TI-Nspire™ CX Navigator™ system

Tara Whittington, tara.whittington@carrollcountyschools.com, Temple High School, Villa Rica, Georgia, United States

Co-presenter: Kerry Burross

Data-driven instruction is a must to ensure that all students are reaching the standards and material. TI-Nspire™ technology enables math teachers to formatively and summatively assess students daily. Teachers can then use this data to differentiate lessons for students at all levels. This session will include a hands-on demonstration of the TI-Nspire™ CX Navigator™ system, examples of assessment types used in a high school math classroom, and ways to use information gathered from TI technology for data analysis.

11 a.m. - noon

Grand Ballroom Salon 12

Seats: 60

60-minute hands-on

Beginner

Assessment

233 Moving toward a paperless classroom with the TI-Nspire™ CX Navigator™ system

TI-Nspire™ CX Navigator™ system

Dan Kennedy, dankennedy.stem.ed@gmail.com, Tucson Unified School District, Tucson, Arizona, United States

The reliability and functionality of the TI-Nspire™ handhelds coupled with the TI-Nspire™ CX Navigator™ system allows instructors to eliminate almost all paper assessments from the classroom. With some additional effort on the front end and strategic use of Porfolio Workspace features, teachers can save time on grading and offer students more opportunities to demonstrate mastery of material.

11 a.m. - noon

Grand Ballroom Salon 13

Seats: 60

60-minute hands-on

Intermediate

Formative Assessment

234 When will we ever use this? Some answers with TI-84 Plus graphing calculator applications

TI-84 Plus family of graphing calculators

Scott Oliver, soliver@d125.org, Lake Bluff, Illinois, United States

Students often (rightfully) want to know about actual applications of what they are learning in mathematics and science. We will be focusing on resources – books, magazines/journals, movies, TV shows, sports, medicine, the law, art, Internet sites, TI-84 Plus graphing calculator programs/ applications – that will help you to answer the question I am sure you have heard before, probably many times. Mathematics really is used in *everyday life*.

11 a.m. - noon

Grand Ballroom Salon 14

Seats: 60

60-minute lecture/demonstration

Beginner

General Interest

235 Application of right-triangle trigonometry in forensics

TI-Nspire™ CX Navigator™ system

Christy Barton, cbarton@madeiracityschools.org, Madeira City Schools, Cincinnati, Ohio, United States

Co-presenter: Suzy Tucker

Following the excitement of *CSI* and *NCIS* television series, this session will present real-world applications that prove the need for trigonometry. We will use geometry and graph pages to investigate forensic applications of trigonometry. For example, students can analyze blood-spatter patterns to find a point of origin as well as reconstruct a shooting using vertical and horizontal angles. Lessons would be appropriate for forensics, geometry or trigonometry classes.

11 a.m. - noon

Crystal Ballroom Salon A

Seats: 40

60-minute lecture/demonstration

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

236 Bats, moths and motion detectors: connecting math and echolocation

TI-Nspire™ CX handheld

Luke Stultz, luke.stultz@sarasotacountychools.net, Sarasota Middle School, Sarasota, Florida, United States

Co-presenter: Jennifer Mattu

This hands-on activity allows students to create and analyze graphs using the TI-Nspire™ CX handheld with Vernier® motion detectors. Students will explore graphs and their relations with distance, velocity and acceleration. This activity culminates with an engaging competition that brings learning to life!

11 a.m. - noon

Crystal Ballroom Salon B

Seats: 40

60-minute hands-on

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

237 Sliders and Jacobi's law: TI-Nspire™ CX handheld

TI-Nspire™ CX handheld

Ian Galloway, irg@soton.ac.uk, Copernican Revolutions, Southampton, United Kingdom

Math teachers may be familiar with the use of sliders, but science teachers less so. This TI-Nspire™ session will show you how to use sliders to model scientific situations and support investigations. It is a deliberate attempt to connect math to science, using the slider as the bridge. Beginning with some simple models, we will end with Jacobi's Law – if you've never heard of it, it's a real power struggle! Everyone employs Jacobi's Law every day. It's easy to describe and difficult to explain, but with the right technology and good integration with math with science, all will become clear.

11 a.m. - noon

Crystal Ballroom Salon C

Seats: 40

60-minute hands-on

Intermediate

Physics

238 STEM-based activities for the classroom using the TI-Nspire™ CX technology

TI-Nspire™ CX Navigator™ system

Cassie Whitecotton, cassie.whitecotton@gmail.com, Fort Worth Independent School District, Fort Worth, Texas, United States

Learn how the TI-Nspire™ CX technology can become more than just a great data-collection device. Participants will engage in a science, technology, engineering and math-based activity that is hands-on and interactive. We will use the TI-Nspire™ Navigator™ system's Class Capture and Live Presenter features to keep participants engaged with each other. This session will also introduce the use of the engineering design process.

11 a.m. - noon

Crystal Ballroom Salon D

Seats: 40

60-minute hands-on

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

239 Science and math look at the thermometer

TI-84 Plus Silver Edition graphing calculator

Tom Cauffield, tcauffield@att.net, Palm Beach Central High School, Jupiter, Florida, United States

Co-presenter: Jonathan Cauffield

This session will use science and math together to see if relationships, regressions, functions and fun can be drawn out of data gathered from a simple temperature probe.

11 a.m. - noon

Crystal Ballroom Salon E

Seats: 40

60-minute hands-on

Beginner

General Science

240 Astronomical relationships: graphical models of the solar system with the TI-Nspire™ CX technology

TI-Nspire™ CX Navigator™ system

Christopher Broomall, crbrooma@volusia.k12.fl.us, Volusia County Schools, New Smyrna Beach, Florida, United States

Co-presenter: Amy Monahan

In this session, participants will create multiple graphical models of our solar system on the TI-Nspire™ CX handheld. We will create these models using characteristics (number of moons, mass, diameter, orbital speed/length) of the planets in our solar system as variables in a graph. Participants will learn how to enter data, create graphs, and exchange/swap variables on the TI-Nspire™ CX handles. We will use these skills to identify relationships between multiple characteristics of the planets in our solar system and conclude why these relationships or nonrelationships occur.

11 a.m. - noon

Crystal Ballroom Salon F

Seats: 40

60-minute hands-on

Beginner

Middle Grades Science

241 Transforming the teaching and learning of mathematics in the digital age

John Staley, jstaley@bcps.org, @jstaley06, Baltimore County Public Schools, Towson, Maryland, United States

Co-presenter: Maria Everett

The role between teacher and student in the mathematics classroom must change as digital resources and technology become more available. Join us as we share details about Baltimore County's Students and Teachers Accessing Tomorrow initiative. During this session, participants will gain insight into the transformation of teaching and learning to equip every student with the critical 21st-century skills needed to become a globally competitive, mathematically literate citizen. The central office staff and school-based teachers will share insights of our journey.

11 a.m. - noon

Crystal Ballroom Salon K

Seats: 40

60-minute lecture/demonstration

Intermediate

Administrator

242 Teaching adolescent and young adult students TI Basic programming with the TI-84 Plus Silver Edition graphing calculator

TI-84 Plus Silver Edition graphing calculator

John Isaacs, john.isaacs@huberheightscityschools.org, Weisenborn Junior High School/Huber Heights City School District, Huber Heights, Ohio, United States

In this 60-minute, hands-on, interactive session, participants will learn how to teach adolescents through young adults the art of programming their TI-84 Plus graphing calculators with the built-in features of the TI Basic programming language. We will highlight successful instructional techniques regarding pedagogy, terminology, logic, lesson planning and assignments. Participants will have the use of a TI-84 Plus graphing calculator to apply proven practices and write working programs that they can take back to their classroom. I will provide detailed handouts and present my war stories of successful teaching strategies, with demonstrations.

11 a.m. - noon

Crystal Ballroom Salon L

Seats: 40

60-minute hands-on

Beginner

Programming

243 CAS/The computer algebra system: first steps

TI-Nspire™ CX CAS handheld

Tom Fox, foxthomasb@yahoo.com, University of Houston – Clear Lake, Webster, Texas, United States

Let's spend some time to get to know some of the basic functions of the computer algebra system (CAS) on the TI-Nspire™ CX CAS handheld. We'll look at some introductory activities that you can do with algebra and pre-algebra students to help them develop important skills and concepts using the CAS and guided discovery activities.

244 Counting on real numbers with the TI-15 Explorer™ elementary calculator to have a few surprises

TI-15 Explorer™ elementary calculator

Lindsay Gold, lindsayanngold@gmail.com, @lindsayanngold, Ohio University, Tipp City, Ohio, United States

Co-presenter: Johnny Ashurst

In elementary grades we learn to count, recognize patterns, and use basic operations to solve problems. Using a TI-15 Explorer™ elementary calculator, we will investigate how real numbers evolve in understanding from counting to irrational. Participants will engage in an activity that encourages their students to explore the world of real numbers and discover a few surprises along the way.

245 Exploring sequences and series with CAS (Computer Algebra System)

TI-Nspire™ CX CAS handheld

Irina Lyublinskaya, irina.lyublinskaya@gmail.com, @ilyublin, College of Staten Island, Staten Island, New York, United States

The computer algebra system (CAS) provides new opportunities to investigate sequences and series and to discover some interesting patterns while avoiding tedious calculations. We will explore the convergence of various sequences and series algebraically and graphically.

246 Use zombies to make STEM become undead!

TI-Nspire™ CX Navigator™ system

Jeff Lukens, jeffreylukens0613@gmail.com, Sioux Falls, South Dakota, United States

Co-presenter: Leann Iacuone

By making use of pop-culture trends, we can raise the levels of engagement and interest in our science and math classrooms. In recent years, very few trends have been as wildly or widely popular as zombies. Use this craze to make science, technology, engineering and math become *un-dead* in your science classroom! Make sure to bring your brains to this hands-on session.

247 Essential elements of effective mathematics programs

Matt Larson, mattlarson94@gmail.com, @mlarson_math, Lincoln Public Schools, Lincoln, Nebraska, United States

Although effective instruction is the nonnegotiable core of successful mathematics programs, to ensure the mathematical success of all students, effective instruction must be take place within a system that includes five essential supporting elements. This session will provide an overview of the five supporting elements of effective mathematics programs and address specific actions that you can take to build highly effective mathematics programs and ensure that mathematics works for all students.

248 TI-Nspire™ CX CAS handheld explorations to prepare students for precalculus

TI-Nspire™ CX CAS handheld

Ken Collins, kcollins@charlottelatin.org, Charlotte Latin School, Charlotte, North Carolina, United States

We will share TI-Nspire™ calculator explorations that we have used at the beginning of precalculus. Our goal is to help deepen student understanding of the transformation of functions in preparation for precalculus. We will provide classroom-ready handouts.

11 a.m. - noon**Crystal Ballroom Salon M**

Seats: 40

60-minute lecture/demonstration

Beginner

Computer Algebra System (CAS)

11 a.m. - noon**Crystal Ballroom Salon N**

Seats: 40

60-minute hands-on

Beginner

Elementary Math

11 a.m. - noon**Canary 1**

Seats: 80

60-minute lecture/demonstration

Advanced

Computer Algebra System (CAS)

11 a.m. - noon**Canary 2**

Seats: 80

60-minute hands-on

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

11 a.m. - noon**Canary 3**

Seats: 80

60-minute lecture/demonstration

Beginner

General Math

11 a.m. - noon**Canary 4**

Seats: 80

60-minute lecture/demonstration

Intermediate

Precalculus

368 Drawing connections with probability distributions

TI-Nspire™ CX Navigator™ system

Todd Steckler, tsteckler@southtexascollege.edu, La Joya High School/La Joya Independent School District/ South Texas College, McAllen, Texas, United States

This session will present some discrete probability distribution applications, emphasizing definitions of random variables and probability distributions. We will look at connections to center, shape and spread. Problems will include writing probability inequalities, use of PDF vs. CDF and linear transformation. We will investigate some specific discrete distributions including binomial and geometric. If time permits, we will explore a continuous probability distribution involving geometry. The focus will be on Advanced Placement statistics, with some information appropriate for middle school statistics.

11 a.m. - noon

North Tower: Aruba

Seats: 36

60-minute lecture/demonstration

Beginner

Statistics

369 Teaching statistics with technology

TI-Nspire™ technology, TI-84 Plus family of graphing calculators

Cory Cloud, pcc02c@fsu.edu, Florida State University Developmental Research School, Tallahassee, Florida, United States

This presentation is focused on giving teachers technology-based statistics lesson ideas to immediately use in their classroom. Activities range in level from the middle grades all the way through Advanced Placement statistics. While we will use technology in each activity, the focus of this session is on the implementation of the activities in the classroom. Bring a graphing calculator and be prepared to do statistics!

11 a.m. - noon

North Tower: Bahamas

Seats: 36

60-minute hands-on

Beginner

Statistics

249 Ease into exponential functions with the TI-Nspire™ CX technology or the TI-84 Plus graphing calculator

TI-Nspire™ CX Navigator™ system

Kathy Traylor, traylork@gmail.com, @traylormath, Decatur, Georgia, United States

Algebra students need to thoroughly understand exponential functions, so here's an engaging way to get them started: with candy and graphing calculators. Be a student in this session and learn how rationing your treats mathematically leads easily into an understanding of how exponential functions and geometric sequences work. We'll use TI-84 Plus graphing calculators and TI-Nspire™ handhelds to graph the data and determine a mathematical formula that describes what we've found. Optional: Bring a bag of candy!

1 - 2 p.m.

Washington

Seats: 40

60-minute hands-on

Intermediate

Algebra I

250 Exploring transformations with the TI-84 Plus CE graphing calculator

TI-84 Plus CE graphing calculator

Richard Parr, rparr@rice.edu, @rparr63, Rice University, Houston, Texas, United States

Understanding transformations is critical for high school mathematics students. See how the TI-84 Plus CE graphing calculator can help students explore transformations through multiple representations so that they can make connections between algebra and geometry.

1 - 2 p.m.

Tampa

Seats: 40

60-minute lecture/demonstration

Intermediate

Algebra I

251 Transformations in the coordinate plane with the TI-84 Plus family of graphing calculators

TI-84 Plus CE graphing calculator

Margaret Bambrick, ndbambrick@att.net, @ndbambrick, University High School, Orange City, Florida, United States

Co-presenter: Ruth Casey

Participants will explore strategies to engage students in generalizing patterns and relationships that lead to an understanding of transformations in the coordinate plane. We will make connections between algebra and geometry with transformations that may include translations, reflections and rotations. We will use photographs and images to connect mathematics to the world around us as we use features of the TI-84 Plus CE graphing calculator that can increase student engagement and learning. This session will include mathematics topics from Common Core State Standards and Mathematics Florida Standards.

1 - 2 p.m.

St. Louis

Seats: 40

60-minute hands-on

Beginner

Algebra I

252 Teaching the Florida standards in algebra II using the TI-Nspire™ CX CAS handheld*TI-Nspire™ CX CAS handheld**Brendan Kelly, bkelly10@cogeco.ca, Burlington, Ontario, Canada*

This presentation will showcase the teaching of algebra II using the TI-Nspire™ CX CAS handheld. We will share exciting applications of rational expressions, trigonometry, exponential and log functions, and statistics. This session includes DVDs and full-color textbooks containing TI-Nspire™ activities with screen displays given as prizes. Handouts will offer full documentation of the activities and we will provide a website for participants to access free .tns files and animated tutorials.

1 - 2 p.m.**San Francisco***Seats: 40**60-minute hands-on**Intermediate**Algebra II***253 Using the TI-84 Plus Silver Edition graphing calculator to teach transformations from algebra through calculus***TI-84 Plus Silver Edition graphing calculator**Ronn Blaha, blaha@elmbrookschoools.org, @bcxcoach, Elmbrook Schools, Brookfield, Wisconsin, United States**Co-presenter: Scott Nelsen*

A solid understanding of transformations can help students make sense of many mathematical concepts, including concepts that they encounter for the first time. This session will focus on teaching transformations to write equations of lines, model exponential growth, derive the equation of the sum and product of sinusoids, understand the z-score, and discover the chain rule of derivatives. Participants will be able to answer the question, *Why do transformations in the x-direction have the opposite effect?* in a way that lays the foundation for calculus. This session will rely heavily on the function notation built into the TI-84 Plus Silver Edition graphing calculator.

1 - 2 p.m.**San Antonio***Seats: 40**60-minute hands-on**Intermediate**Algebra II***254 It's all downhill from here – explorations with negative slope***TI-84 Plus Silver Edition graphing calculator**Don Slater, don.slater@cobbk12.org, Lassiter High School, Marietta, Georgia, United States**Co-presenter: Debbie Poss*

Do all lines have positive slope? No, but when they're introduced, it seems like that's all students see. Let's work through tasks where slope is negative, whether it's tying knots, using soap, or racing cars. We'll use the TI-84 Plus Silver Edition graphing calculator to examine scatter plots and make sense of the situation.

1 - 2 p.m.**New York***Seats: 50**60-minute hands-on**Intermediate**Algebra I***255 Geometry mini lessons for the TI-Nspire™ CX handhelds and the TI-Nspire™ CX Navigator™ system***TI-Nspire™ CX Navigator™ system**Bridget Streeb, bstreeb@lufkinisd.org, Lufkin High School, Lufkin, Texas, United States**Co-presenter: Kirsten Wieseman*

Time is always of the essence. So, save time. Keep your students engaged and discovering geometric theorems, properties and postulates using the TI-Nspire™ handhelds and the TI-Nspire™ CX Navigator™ system. Start your students' day off right by getting them thinking about geometry at the beginning of the day. Then keep them thinking about how to apply concepts throughout the day. These handy lessons will support your students as they improve their understanding of geometric and mathematical concepts, better preparing your students for the real world.

1 - 2 p.m.**New Orleans***Seats: 50**60-minute hands-on**Beginner**Geometry***256 Using the TI-Nspire™ CX technology to explore, investigate and discover in the geometry classroom***TI-Nspire™ CX Navigator™ system**Damion Beth, djbeth@barabooschools.net, @DamionBeth, Baraboo School District, Baraboo, Wisconsin, United States*

We will be using the geometry application on the TI-Nspire™ CX CAS handhelds to show how you can let students explore geometric properties, investigate geometric constructions, and discover properties of tessellations. By using the TI-Nspire™ CX Navigator™ system, you can let your students explore freely while checking for understanding using the class snapshot feature. Some experience with the Geometry application is beneficial but not necessary.

1 - 2 p.m.**Los Angeles***Seats: 50**60-minute hands-on**Intermediate**Geometry*

257 What is the quadrant count ratio and why would I want to teach it?

TI-84 Plus CE graphing calculator

Susan Howe, smhowe@charter.net, Elkridge, Maryland, United States

The quadrant count ratio (QCR) is a great way to compare two quantitative variables that appear to have a linear relationship. Participants will use the TI-84 Plus CE graphing calculator to investigate the QCR and explore several ways to informally fit a line to data. These activities develop conceptual understanding to support Common Core State Standards 8.SPA.1 and 8.SPA.2.

1 - 2 p.m.

Denver

Seats: 40

60-minute hands-on

Beginner

Middle Grades Math

258 Data and statistics for the TI-84 Plus CE graphing calculator

TI-84 Plus CE graphing calculator

Pam Littleton, littleton@tarleton.edu, Stephenville, Texas, United States

This hands-on session will demonstrate how to create and then analyze a variety of data and statistics graphic organizers using the TI-84 Plus CE graphing calculator. We will discuss items such as scatter plots, box and whisker plots, histograms and tables.

1 - 2 p.m.

Chicago

Seats: 40

60-minute hands-on

Beginner

Middle Grades Math

260 Using the TI-Nspire™ CX technology to explore infinity within finite and using functions to study fractals

TI-Nspire™ CX Navigator™ system

Amin Lalani, amin.lalani@utdallas.edu, @aminmlalani, University of Texas at Dallas, Richardson, Texas, United States

First, participants will get a chance to construct the first three iterations of Sierpinski's triangle. After constructing Sierpinski's triangle, we will use a .tns file to explore and model the behavior within Sierpinski's triangle. Using the interactive .tns file, participants will capture data that will allow them to use functions to model the relationship between the number of new triangles within each iteration. Finally, participants will explore the relationship between the total number of equilateral triangles constructed up to a given iteration.

1 - 2 p.m.

Grand Ballroom Salon 2

Seats: 60

60-minute hands-on

Beginner

General Math

261 Flipping your TI-Nspire™ classroom

TI-Nspire™ CX Navigator™ system

Valerie Hudson, vhudsonmath@gmail.com, @vhudson_math, Arlington Independent School District, Colleyville, Texas, United States

Do you have a TI-Nspire™ classroom? Are you interested in a flipped classroom approach to instruction? Whether you are experienced or brand new to the idea of the flipped classroom, come join the discussion regarding flipped-classroom experiences. Come ready to learn new ideas on how to incorporate the TI-Nspire™ technology and TI-Nspire™ CX Navigator™ system with a flipped classroom.

1 - 2 p.m.

Grand Ballroom Salon 3

Seats: 60

60-minute hands-on

Intermediate

General Math

262 Not Nspired? No worries

TI-84 Plus family of graphing calculators, TI-Nspire™ technology

Pam Metcalf, metcalfp@pennfield.net, Pennfield Schools, Battle Creek, Michigan, United States

This session presents must-see lessons for your classroom that incorporate TI-Nspire™ technology. These lessons engage students and foster interaction via .tns files. Walk away with lessons that require only one version of TI-Nspire™ Teacher Software. Great session for instructors beginning the transition from the TI-84 family of graphing calculators to TI-Nspire™ technology, and a must for those with minimal budgets, large classrooms and disengaged students.

1 - 2 p.m.

Grand Ballroom Salon 4

Seats: 60

60-minute lecture/demonstration

Beginner

General Interest

263 xTreme calculus: Why should seniors have all the fun?*TI-Nspire™ CAS App for iPad®**Vidal Olivares, olivares@ucmo.edu, University of Central Missouri, Warrensburg, Missouri, United States*

In this session, participants will use the TI-Nspire™ CAS App for iPad® and Calculator-Based Ranger 2™ motion sensor to explore distance, time and velocity graphs to deepen their understanding of the application of derivatives. We will provide suggestions on how to adjust this lesson so that it is applicable for middle grades and secondary mathematics classes. The goal is to decrease students' fear of taking calculus by providing them opportunities to perform pre-Advanced Placement mathematics.

1 - 2 p.m.**Grand Ballroom Salon 5***Seats: 80**60-minute hands-on**Intermediate**General Interest***264 Selfie modeling***TI-Nspire™ CAS App for iPad®**Travis Bower, tbower@dphs.org, Santa Barbara Unified School District, Santa Barbara, California, United States*

Come find out how to use the TI-Nspire™ CAS App for iPad® effectively and confidently. Submitting online assignments is a snap with the camera and Internet connectivity. We will explore some simple projects for graphs and geometry. We will also note some new features of the latest upgrade.

1 - 2 p.m.**Grand Ballroom Salon 6***Seats: 80**60-minute hands-on**Beginner**Algebra II***265 Algebra concepts through modeling: making a curriculum dynamic for students and teachers through the TI-Nspire™ PublishView™ feature***TI-Nspire™ PublishView™ feature**Fay Zenigami, zenigami@hawaii.edu, University of Hawaii at Manoa Curriculum Research and Development Group, Honolulu, Hawaii, United States**Co-presenter: Linda Venenciano*

Participants will explore lessons designed to promote modeling experiences that engage students in algebra concepts through the mathematical practices and support teachers in their instructional practices. We will deliver materials through through the TI-Nspire™ PublishView™ feature, including embedded .tns documents for student or teacher use. Investigations emphasize the Common Core State Standards for Mathematical Practice such as sense-making, abstract and quantitative reasoning, constructing viable arguments, and looking for and making use of structure. We will share examples of how teacher materials promote the National Council of Teachers of Mathematics mathematics teaching practices such as posing purposeful questions, supporting productive struggle, and using and connecting mathematical representations.

1 - 2 p.m.**Grand Ballroom Salon 9***Seats: 30**60-minute hands-on**Beginner**Algebra I***267 Discovering the hidden gems of calculus with help from the TI-Nspire™ CX CAS handheld***TI-Nspire™ CX CAS handheld**Kurt Kleinberg, kurtkleinberg@claytonschoools.net, Clayton High School, St. Louis, Missouri, United States**Co-presenter: David Kohmetscher*

In this session, we will explore several calculus topics that are often left underdeveloped and are challenging to demonstrate. With help from the TI-Nspire™ CX CAS handheld, we will get bang for our buck on the following topics: derivatives of implicit relations, derivatives of inverse functions, power series and other topics (time permitting).

1 - 2 p.m.**Grand Ballroom Salon 11***Seats: 60**60-minute hands-on**Intermediate**Calculus***268 Creating finance portfolios using the TI-84 Plus graphing calculator***TI-84 Plus CE graphing calculator**Melinda Wilder, melinda.wilder@bartow.k12.ga.us, Bartow County School District, Cartersville, Georgia, United States*

When students leave high school, they have often not acquired real-life skills related to financial literacy. Developing a finance portfolio not only teaches students these real-world skills, but also provides examples for later use. This session will show how to develop a portfolio using the Time Value of Money application on the TI-84 Plus CE graphing calculator.

1 - 2 p.m.**Grand Ballroom Salon 12***Seats: 60**60-minute lecture/demonstration**Beginner**Assessment*

269 Inspiring formative assessments in the secondary math classroom

TI-Nspire™ CX Navigator™ system

Sherrí Phegley, sherribc@comcast.net, @slphegley, Fort Bend Independent School District, Sugar Land, Texas, United States

Learn how to create and deliver formative assessments in your classroom using your TI-Nspire™ handheld with and without a TI-Nspire™ Navigator™ system. Use a multitude of different question types to find out how to quickly gather data to use in planning further instruction.

1 - 2 p.m.

Grand Ballroom Salon 13

Seats: 60

60-minute hands-on

Intermediate

Formative Assessment

270 Using the TI-Nspire™ CX Navigator™ system to connect with your classroom

TI-Nspire™ CX Navigator™ system

Sarah Schmitz, sarah.schmitz@aps.edu, Highland High School/Albuquerque Public Schools, Albuquerque, New Mexico, United States

Co-presenter: RuthieAnn Trujillo

The TI-Nspire™ CX Navigator™ system allows you to interact with your class beyond just sending them questions and documents. Explore how to individualize simple but meaningful feedback to better connect with your students in class, on assignments and after assessments. Leave this session with strategies to take interactions with your classes to the next level.

1 - 2 p.m.

Grand Ballroom Salon 14

Seats: 60

60-minute hands-on

Intermediate

General Interest

272 Fall, bounce, repeat? Creating collaborative lessons between science and math using the TI-Nspire™ CX Navigator™ system

TI-Nspire™ CX Navigator™ system

David Willis, dwillis@lufkinisd.org, Lufkin Independent School District, Lufkin, Texas, United States

Co-presenter: Robert Inman

The session will guide participants through a collaborative process that math and science teachers can use to develop lessons. The examples are from algebra II/physics, but the principles are applicable to other grade levels and content areas. We will demonstrate a sample lab from physics and collect data that would be used in algebra II. We will use TI-Nspire™ files along with the TI-Nspire™ CX Navigator™ system.

1 - 2 p.m.

Crystal Ballroom Salon B

Seats: 40

60-minute lecture/demonstration

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

273 Connecting STEM with environmental literacy using the TI-Nspire™ CX technology

TI-Nspire™ CX Navigator™ system

Jessica Kohout, jessica_kohout@hcpss.org, Reservoir High School/Howard County Public School System, Ellicott City, Maryland, United States

Get your students outside and learning about the world around them. In this session, learn how to use the TI-Nspire™ CX Navigator™ system to collect and analyze data in your own schoolyard. Give your students the tools to collect and use evidence in a meaningful way to make a change in their own hometowns. Get ideas on how to help your students take action on the health of their own local watersheds by creating student action projects that incorporate biology, environmental science, chemistry, engineering, mathematics, art and government.

1 - 2 p.m.

Crystal Ballroom Salon C

Seats: 40

60-minute hands-on

Intermediate

Biology

274 Using STEM projects and TI technology to motivate students and assess understanding

TI-84 Plus Silver Edition graphing calculator

Lynda Vincent, lyndav53@optonline.net, @lyndavin, North Salem Central School District, Dover Plains, New York, United States

Co-presenter: Mary Lou Giannetto

This session will focus on the use of problem-solving tasks as a means of encouraging student participation through research and design. Attendees will work as members of a team to solve a problem and justify a solution. Participants may use TI-Nspire™ handhelds or TI-84 Plus graphing calculators as tools in problem-solving. We will discuss strategies for facilitating problem-based learning and communication and share sources for problems.

1 - 2 p.m.

Crystal Ballroom Salon D

Seats: 40

60-minute hands-on

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

275 Water quality at the pond*TI-84 Plus Silver Edition graphing calculator**Toni Riebe, tcauffield@att.net, Palm Beach Central High School, Wellington, Florida, United States**Co-presenter: Tom Cauffield*

This session will look at water quality in the campus wetlands as the area is being established with native species. We will look at the types of water quality and why we tracked it. Testing will be done with the TI-84 Plus Silver Edition graphing calculator and Vernier® sensors.

1 - 2 p.m.**Crystal Ballroom Salon E***Seats: 40**60-minute lecture/demonstration**Beginner*

General Science

276 Blubber evolution using the TI-Nspire™ CX handheld*TI-Nspire™ CX handheld**Maureen Mack, mmmack@volusia.k12.fl.us, @mzmack702, Heritage Middle School/Volusia County Schools, Deltona, Florida, United States*

This session will investigate the effect of blubber on heat retention of mammals. In this lab, you will create different types of insulators that act like fur and blubber (using bubble wrap and vegetable shortening). Using a TI-Nspire™ CX handheld and temperature probes, you will measure the amount of temperature change for each insulator. The goal is to make connections between the type of insulator and how mammals adapt to climate change.

1 - 2 p.m.**Crystal Ballroom Salon F***Seats: 40**60-minute hands-on**Beginner*

Middle Grades Science

277 My team is excited ... now what?*Scott Gaddis, gaddiss@wcohs.org, @wnhs_gaddis, Westerville North High School, Westerville, Ohio, United States*

Beginning in 2014, our school's math department (with the help of the administration) set out on a quest to acquire and use the TI-Nspire™ Navigator™ system and TI-Nspire™ handhelds to change how the school interacts in math classrooms. Members of the team, including administrators and teachers, will share with you our journey thus far (including the bumps in the road) and where we still hope to go.

1 - 2 p.m.**Crystal Ballroom Salon K***Seats: 40**60-minute lecture/demonstration**Beginner*

Administrator

278 Achieving a shared goal with AP* Computer Science A and AP* Computer Science principles*Lien Diaz, smagrogan@collegeboard.org, The College Board, Duluth, Georgia, United States**Co-presenter: Owen Astrachan*

In recent years, the Advanced Placement (AP*) computer science (CS) A course and examination has been the subject of substantial discussion and debate. How should computer science be introduced? What topics should be included? What pedagogy is appropriate? To what extent should programming be involved? This session seeks to clarify the role of the AP* CS A course and examine how the new AP* computer science principles course will complement the exam offerings of the College Board. This session will then provide an overview of the development and launch of the new AP* computer science principles course and exam in fall 2016.

1 - 2 p.m.**Crystal Ballroom Salon L***Seats: 40**60-minute lecture/demonstration**Advanced*

Programming

281 Using TI-Nspire™ CAS technology to address Common Core Math Practices in algebra and precalculus*TI-Nspire™ technology**Wade Ellis, wade25@sbcglobal.net, San Jose, California, United States*

This session will focus on the use of TI-Nspire™ CAS technology (handheld, computer and iPad®) to address the Common Core State Standards for Mathematical Practice in algebra and precalculus. Participants will observe how to use the CAS capabilities of TI-Nspire™ technology to encourage students to look for structure in algebraic expressions; create mathematical arguments and critique the arguments of others; and how students, in so doing, will learn the importance and use of precise language, and persevere in making and refining arguments.

1 - 2 p.m.**Canary 1***Seats: 80**60-minute lecture/demonstration**Intermediate*

Computer Algebra System (CAS)

282 TeacherTube® classrooms inspired!

TI-Nspire™ technology

Jason Smith, jason@teachertube.com, @teachertube, TeacherTube® LLC, McKinney, Texas, United States

Flip your classroom in five minutes or less using TI-Nspire™ technology lessons. TeacherTube® CEO Jay Smith will share and demonstrate TeacherTube®'s content management community of over 500,000 educational resources and 1.5 million teacher members. Jay will share how easy it is to transition the wonderful resources Texas Instruments provides to your very own classroom. TeacherTube® offers free easy-to-use tools, resources and online classrooms that allow access to all of your students from any device connected to the Internet. Witness Jay flip a TI-Nspire™ technology lesson in less than five minutes.

1 - 2 p.m.

Canary 3

Seats: 80

60-minute hands-on

Beginner

General Interest

283 Overview of the TI-30Xa scientific calculator

TI-30Xa scientific calculator

Beth Smith, bethinghamsmith@gmail.com, @bismith60, Jacksonville, Florida, United States

Let's spend some time getting to know the TI-30Xa scientific calculator, which students may use on the Florida Standards Assessment. Learn how classroom use helps students become familiar with the TI-30Xa scientific calculator and how to use the calculator as an investigation and discovery tool. Walk away with new knowledge and ideas to help your students be more successful.

1 - 2 p.m.

Canary 3

Seats: 80

60-minute hands-on

Beginner

Algebra I

284 Using a problem-solving activity to develop mathematical habits of mind

TI-Nspire™ CX CAS handheld

Lynn Adsit, lynn.adsit@mercerislandschools.org, @ladsit76, Mercer Island High School, Kirkland, Washington, United States

Co-presenter: Kim Schjelderup

Have you ever wondered how to help your students to think thoughtfully about a nonroutine problem situation before diving in to solve it? Or help them persevere during the needed productive struggle phase? Or encourage them to use metacognition during and after the problem-solving process? So have!! This student-centered, problem-based collaborative learning activity requires students to read the problem thoughtfully, and then obliges them to work and think together to organize what they know (including a graphical representation), generate questions, determine an answer, and finally communicate the solution in a cohesive and understandable way. Come and enjoy the fun!

1 - 2 p.m.

Canary 4

Seats: 80

60-minute hands-on

Intermediate

Precalculus

370 Epidemiology and statistics using the TI-84 Plus CE graphing calculator

TI-84 Plus CE graphing calculator

Corina Srygley, mrssrygley@gmail.com, @ccsrygle, Amarillo Area Center for Advanced Learning/ Amarillo Independent School District, Amarillo, Texas, United States

You will investigate different epidemiology case studies from the Centers for Disease Control and Prevention. You will then use the TI-84 Plus CE graphing calculator to investigate and analyze the data from these case studies. The activities presented will implement the Common Core State Standards for Mathematical Practice and the National Council of Teachers of Mathematics Principles and Standards. You will leave the session with activities ready to use in class.

1 - 2 p.m.

North Tower: Aruba

Seats: 36

60-minute hands-on

Beginner

Statistics

371 Statistics activities for middle school students using the TI-84 Plus C Silver Edition graphing calculator*TI-84 Plus CE graphing calculator**Gail Gallitano, ggallitano@wcupa.edu, West Chester University of Pennsylvania, West Chester, Pennsylvania, United States*

This workshop will focus on statistics activities for middle school students. Topics will include both descriptive and inferential statistics. We will use human body data for many of the activities and other data that students can easily relate to and collect. This workshop will cover a general survey of statistics topics, including but not limited to box and whisker plots, scatter plots and linear regression, the normal probability distribution, the binomial probability distribution, confidence intervals, and hypothesis testing. We will use the TI-84 Plus CE graphing calculator.

1 - 2 p.m.**North Tower: Bahamas**

Seats: 36

60-minute hands-on

Beginner

Statistics

383 Mathematical Modelling with TI – using TI-84 family and TI-Nspire™ technology*TI-Nspire™ CX CAS handheld**Melissa Hourigan, mhour7@eq.edu.au, Narangba Valley State High School, Burpengary, Queensland, Australia*

Mathematical Modelling is essential in the problem solving classroom. This session will incorporate both the TI-84 family and TI-Nspire™ technology to show how technology enhances our ability to teach problem solving using a variety of mathematical modelling examples and strategies. Participants will generate data and functions then use these to solve everyday problems.

1 - 2 p.m.**North Tower: Grand Cayman**

Seats: 36

60-minute hands-on

Beginner

Statistics

285 Inside the algebra of the completely redesigned SAT**TI-Nspire™ CX Navigator™ system**Jeff McCalla, jmccalla@stmarysschool.org, @jmccalla1, St. Mary's Episcopal School, Memphis, Tennessee, United States*

The College Board has overhauled the PSAT/SAT* exams. Beginning in March 2016, the SAT* will focus on the *math that matters most*. If you teach algebra I or algebra II, you will want to see how the changes may impact the way we teach algebra. See how technology can help prepare our students to tackle these changes.

2:15 - 3:45 p.m.**Washington**

Seats: 40

90-minute hands-on

Beginner

Algebra I

286 For the love of Fido and more – modeling math on the TI-84 Plus graphing calculator*TI-84 Plus CE graphing calculator**David Reeves, nspiredmathteacher@gmail.com, Andrew Carnegie Middle School, Roseville, California, United States**Co-presenter: Kyle Atkin*

Common Core State Standards for Mathematical Practice MP4 states: *Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society and the workplace.* In this session, we will use the TI-84 Plus graphing calculator as a mathematical modeling tool to set up and solve some interesting (and hopefully fun) problems. New users of the TI-84 Plus CE graphing calculator are welcome, but some prior experience on the calculator will prove helpful.

2:15 - 3:45 p.m.**Tampa**

Seats: 40

90-minute hands-on

Intermediate

Algebra I

287 Using the TI-84 Plus Silver Edition graphing calculator for state assessments*TI-84 Plus Silver Edition graphing calculator**Kathy Hale, khale@esc14.net, Region 14 Education Services Center, Abilene, Texas, United States*

Using technology for assessments is different than using it for instruction and concept development. Come experience tried-and-true methods that give students strategies for success with assessments. Help minimize the stress of testing for students and teachers.

2:15 - 3:45 p.m.**St. Louis**

Seats: 40

90-minute hands-on

Intermediate

Algebra I

288 Real valued functions of complex numbers

TI-Nspire™ technology

Pat Mara, mathmara@comcast.net, Pueblo, Colorado, United States

Every algebra II student knows that polynomial functions can have nonreal zeros. But where are these zeros when we look at a graph? By using the power of visualization on the TI-Nspire™ handheld, we will graph functions in three-dimensional space and be able to see the zeros.

2:15 - 3:45 p.m.

San Francisco

Seats: 40

90-minute lecture/demonstration

Beginner

Algebra II

289 Solving systems of equations using the TI-84 Plus CE graphing calculator

TI-84 Plus CE graphing calculator

Debbie Sheridan, d.sheridan@frassaticatholic.org, @Sheridan6Debbie, Frassati Catholic High School, Spring, Texas, United States

In this hands-on session, participants will use the TI-84 Plus CE graphing calculator to explore systems of equations through a series of classroom-ready activities. Given a real-life context, solve problems by representing a problem situation using a system of equations, solve the system using a variety of solution strategies, and interpret the solution as it relates to the problem context.

2:15 - 3:45 p.m.

San Antonio

Seats: 40

90-minute hands-on

Beginner

Algebra II

290 The TI-84 Plus graphing calculator: a concept development tool in the secondary classroom

TI-84 Plus CE graphing calculator

Andi Parr, aparr@esc12.net, @mathparr, Education Service Center Region 12, Temple, Texas, United States

Participants in this hands-on session will explore lessons and activities that transform the TI-84 Plus CE graphing calculator from just getting an answer to a conceptual understanding of the material.

2:15 - 3:45 p.m.

New York

Seats: 50

90-minute hands-on

Intermediate

Algebra I

291 Teaching with TI-Nspire™ CX handhelds and TI-Nspire™ CX Navigator™ technology: Can you guess my age?

TI-Nspire™ CX Navigator™ system

Victoria Soto, tori.soto@gmail.com, @TiNspireTori, Holmes High School/Northside Independent School District, San Antonio, Texas, United States

Participants will take the popular guess the age activity and bring learning to life using the TI-Nspire™ CX handhelds and the TI-Nspire™ CX Navigator™ system. Handhelds will be provided for you. Come experience a middle school- to high school-level activity collecting data, finding the line of best fit, and using the linear parent function to determine just how good of a guesser you are. Leave with an activity to take back to your classroom.

2:15 - 3:45 p.m.

New Orleans

Seats: 50

90-minute hands-on

Intermediate

Middle Grades Math

292 I have identified a sequence of rigid motions – now what?

TI-Nspire™ CX Navigator™ system

Stephen West, west@geneseo.edu, @StephenFWest, State University of New York Geneseo, Livonia, New York, United States

The Common Core State Standards for Mathematics states that to show congruence of two geometric figures, you must identify a rigid motion or sequence of rigid motions that maps one figure onto the other. Is this a guessing game or is there a strategy involved? Once you have found the required rigid motion(s), does this constitute a proof? In this session, participants will learn strategies that assist in identifying appropriate rigid motions, using the TI-Nspire™ CX technology to confirm the selection and discuss what is required for a real proof.

2:15 - 3:45 p.m.

Los Angeles

Seats: 50

90-minute hands-on

Intermediate

Geometry

293 Mastering math concepts*TI-Nspire™ CX Navigator™ system**Doug Smeltz, dsmeltz1@hotmail.com, @drsmeltz, Westerville, Ohio, United States*

If you use TI-Nspire™ technology in your middle school, algebra I or geometry class, these documents will supplement your goal of having students leave your class at the end of the year with a mastery of the concepts you present. If you have students who transfer to you after the beginning of the year, these documents allow you to find out how they are progressing and also allow them to catch up with the class in skill level.

2:15 - 3:45 p.m.**Denver**

Seats: 40

90-minute hands-on

Intermediate

Middle Grades Math

294 Dynamic middle school math with the TI-Nspire™ CX technology*TI-Nspire™ CX Navigator™ system**Maria Benzon, maria.benzon@gmail.com, @mariabenzon, University of Houston, Houston, Texas, United States*

This fun and engaging session is perfect as an introduction to the awesomeness of the TI-Nspire™ CX technology for middle school. Explore *simple* calculations as an extension of conceptual understanding. Utilize real-world topics in ready-made files that accentuate the dynamic aspect of statistics, graphs and charts.

2:15 - 3:45 p.m.**Chicago**

Seats: 40

90-minute hands-on

Beginner

Middle Grades Math

295 What do I do the first day I use TI-Nspire™ technology with my students?*TI-Nspire™ CX Navigator™ system**Jeremy Zelkowski, jzelkowski@ua.edu, University of Alabama, Tuscaloosa, Alabama, United States*

This session will provide a newly developed engaging and playful scavenger-hunt-type lesson for math teachers to use with their classes when they begin using TI-Nspire™ technology – because students want to *play* the first time they use TI-Nspire™ technology. Participants of all levels are welcome, but the session will focus more on those new to TI-Nspire™ technology and those transitioning from the TI-83 and TI-84 Plus graphing calculators. All materials will be provided, including digital files that teachers can edit. Also, learn how to use TI-Nspire™ Teacher Software in your classroom.

2:15 - 3:45 p.m.**Grand Ballroom Salon 1**

Seats: 60

90-minute hands-on

Beginner

General Math

296 How the brain learns mathematics – ideas from David Sousa*TI-Nspire™ CX Navigator™ system**Stephanie MacKay, stephanie.mackay@ecsd.net, Edmonton Catholic Schools, Edmonton, Canada*

Co-presenter: Ron Kennedy

Based on brain research conducted by David Sousa, Stephanie will share ideas on how the teenage brain learns mathematics and suggest ways that educators can translate current brain research into strategies to improve learning.

2:15 - 3:45 p.m.**Grand Ballroom Salon 2**

Seats: 60

90-minute hands-on

Intermediate

General Math

297 Building Concepts: change the way you teach*TI-Nspire™ CX Navigator™ system**Chris Longueira, clonguei@cloverpark.k12.wa.us, @clonguei, Cloverpark School District, Lacey, Washington, United States*

As math teachers, we all have those units that are just tough to teach. In this session, you will be introduced to Texas Instruments Building Concepts in mathematics lessons. These lessons are designed to take students to a deeper understanding of many difficult concepts. We will focus on the ratio and proportions lessons, demonstrating how visual learning and well-developed questions can support you and help your students reach mastery of this content.

2:15 - 3:45 p.m.**Grand Ballroom Salon 3**

Seats: 60

90-minute hands-on

Intermediate

Middle Grades Math

298 Exploring statistics and probability in middle grades with the TI-84 Plus CE graphing calculator*TI-84 Plus CE graphing calculator**Betty Gasque, bgasque@aol.com, @bgmathsc, Charleston, South Carolina, United States*

Experience statistics and probability activities with the TI-84 Plus CE graphing calculator. We'll explore activities that provide opportunities for your middle grades students to reason abstractly and quantitatively, analyze mathematical relationships, and model with mathematics.

2:15 - 3:45 p.m.**Grand Ballroom Salon 4**

Seats: 60

90-minute hands-on

Intermediate

Middle Grades Math

299 It's all relative on the TI-Nspire™ App for iPad®

TI-Nspire™ App for iPad®

Marsha Guntharp, marsha_guntharp@pba.edu, @mguntharp, Palm Beach Atlantic University, Jupiter, Florida, United States

Co-presenter: Fred Browning

Relativity is one of the great advancements of modern physics, yet it tends to remain out of high school physics classes. Using the TI-Nspire™ App for iPad®, we have developed a .tns file that brings the concepts with numeric examples to the appropriate level. We will cover topics such as space contraction, time dilation, area and angle transformations, and the addition of velocities. Participants will be able to explore the activities themselves. It is our hope that this could serve as a model of a way to bring mathematically intensive concepts to a younger audience.

2:15 - 3:45 p.m.

Grand Ballroom Salon 5

Seats: 80

90-minute hands-on

Beginner

Physics

300 CAS to the rescue: Using the TI-Nspire™ CAS App for iPad® in RTI2

TI-Nspire™ CAS App for iPad®

Tina Alhashimi, tina.alhashimi@waynetn.net, Collinwood High School, Collinwood, Tennessee, United States

Come learn how to use a computer algebra system (CAS) in Response to Instruction and Intervention (RTI2) for all levels of achievers. Participants will discover ways to use the TI-Nspire™ CAS App for iPad® as a teaching and learning tool in the classroom for students who may be struggling with basic algebraic and mathematical concepts. The instructor will demonstrate and share successes and pitfalls of implementing and using CAS in the classroom.

2:15 - 3:45 p.m.

Grand Ballroom Salon 6

Seats: 80

90-minute lecture/demonstration

Beginner

Computer Algebra System (CAS)

301 Sliders, conditionals and math boxes, oh my!

TI-Nspire™ Teacher Software

Mark Arguijo, ticoach.markarguijo@outlook.com, @MaArguijo, TI MathForward™ Implementation Specialist, San Benito, Texas, United States

Have you ever wanted to create your own interactive documents for use with your students? Want to add some wow factor to your lessons? Come find out how to add spice to your documents and get your students more engaged and self-motivated when exploring math concepts. Learn how to use sliders, conditional statements and active math boxes to create short interactive documents to strengthen and add flair to your lessons.

2:15 - 3:45 p.m.

Grand Ballroom Salon 9

Seats: 30

90-minute hands-on

Intermediate

Authoring

302 Keep calm and STEM on!

TI-Nspire™ CX Navigator™ system

Deborah Rice, drice@judsonisd.org, Judson Independent School District, Schertz, Texas, United States

This session will integrate science and math concepts while utilizing a hands-on approach for multiple grade levels. Educators will leave the session with multiple lessons designed to establish a student-centered classroom with innovative thinking. Through interdisciplinary lessons, students can connect knowledge and skills for an in-depth application of basic math and science skills.

2:15 - 3:45 p.m.

Grand Ballroom Salon 10

Seats: 30

90-minute hands-on

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

303 Take it to the limit ... one more time: calculus activities for the TI-Nspire™ CX handhelds/TI-84 Plus graphing calculator family

TI-Nspire™ CX Navigator™ system

Anthony Record, ajrecord@avon-schools.org, Avon High School, Avon, Indiana, United States

Often the first topic discussed in any high school/college calculus course is limits. It is often easy for students to get lost in the abstractness surrounding limits and the general concept of the *infinitesimal*. In this session, participants will witness some pedagogical approaches to provide students a comfortable platform to begin the study of limits. We will share an activity suitable for both the TI-Nspire™ handheld and TI-84 Plus family of graphing calculators that thoroughly illustrates the delta-epsilon definition of limits. Additionally, we will share several other TI-Nspire™ activities covering various topics from Advanced Placement calculus AB and BC.

2:15 - 3:45 p.m.

Grand Ballroom Salon 11

Seats: 60

90-minute hands-on

Intermediate

Calculus

304 Connecting with polar curves

TI-Nspire™ CX CAS handheld

Dennis Wilson, dwilson@landmark-cs.org, Landmark Christian School, Fairburn, Georgia, United States

Polar graphs can present quite a conundrum for students as they try to connect many different concepts and representations. We will explore methods for helping students make connections between their past knowledge and new concepts of polar curves with visual representations. We will use the TI-Nspire™ CX CAS handheld to create dynamic links between the Cartesian and polar coordinate systems. We will also investigate the slope and area of polar curves in relationship to their Cartesian counterparts.

2:15 - 3:45 p.m.

Grand Ballroom Salon 12

Seats: 60

90-minute hands-on

Intermediate

Trigonometry

305 Nspiring open tasks

TI-Nspire™ CX Navigator™ system

Paul Alves, palves314@gmail.com, @paul_math, Peel District School Board, Acton, Canada

The key points in math from the Common Core State Standards state, *The high school standards call on students to practice applying mathematical ways of thinking to real-world issues and challenges; they prepare students to think and reason mathematically.* This session will focus on the use of open questions to improve student thinking and reasoning. I will describe our department's journey to improve student problem-solving by embedding open questions in our instruction and assessments. We will look at strategies for creating open questions and how to evaluate student solutions. We will also explore the role of technology to support student thinking.

2:15 - 3:45 p.m.

Grand Ballroom Salon 13

Seats: 60

90-minute lecture/demonstration

Beginner

Assessment

306 Setup, installation and first-day usage of the TI-Nspire™ CX Navigator™ system

TI-Nspire™ CX Navigator™ system

Daryl Ewry, dewry@ti.com, Dallas, Texas, United States

Co-presenter: Jaryn Ingram

Are you new to the TI-Nspire™ CX Navigator™ system? Still trying to get the basics down? What do you do if you run into trouble? The TI-Cares™ customer support team will cover installation of the software, as well as configuring the network manager and class rosters. They'll also cover the association of handhelds and the placement of the TI-Nspire™ CX Navigator™ system access point. Finally, they'll cover first-day usage, including the Quick Poll, Live Presenter and Class Capture features.

2:15 - 3:45 p.m.

Grand Ballroom Salon 14

Seats: 60

90-minute lecture/demonstration

Beginner

General Interest

307 Teaching for understanding, teaching for transfer

TI-84 Plus CE graphing calculator

Tami Plein, tamiplein@gmail.com, @TamiPlein, Great Prairie Area Education Agency, Burlington, Iowa, United States

Co-presenter: MaryBeth Murrell

Students need to be able to apply their knowledge in places outside the math classroom. Coordinating lessons between science and math courses can help students learn to apply math skills and knowledge to answer scientific questions. Participants will collect and analyze data over density in this hands-on session. We will explore sharing strategies for teaching for transfer between math and science.

2:15 - 3:45 p.m.

Crystal Ballroom Salon A

Seats: 70

90-minute hands-on

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

308 A TI-84 Plus graphing calculator project: a creative test alternative for precalculus

TI-84 Plus CE graphing calculator

Stuart Moskowitz, stuart@humboldt.edu, Humboldt State University, Arcata, California, United States

Use graphs of functions to design your own picture. You will learn advanced capabilities of your graphing calculator such as piecewise functions with restricted domains, graph styles and graphing with lists. This session takes a beginning look at computer graphics that's a real application of algebra – a great motivator for your students! Any model of graphing calculator can work. I'll use the TI-84 Plus CE graphing calculator.

2:15 - 3:45 p.m.

Crystal Ballroom Salon B

Seats: 40

90-minute hands-on

Intermediate

Precalculus

309 Great STEM in math and science classrooms using the TI-Nspire™ CX technology

TI-Nspire™ CX Navigator™ system

Amy Monahan, ammonaha@volusia.k12.fl.us, @amymonahan2, Volusia County Schools, Deland, Florida, United States

Co-presenter: Chris Broomall

Science, technology, engineering and math (STEM) in the classroom integrates math and science with the technology to solve problems (engineering). This session shows how STEM lessons using the TI-Nspire™ technology enhances the Common Core State Standards and Next Generation Science Standards. The TI-Nspire™ CX handheld, along with several Vernier® probes, strengthen the rigor and relevance in the classroom. This session will specifically use Vernier® carts and ramps to illustrate how to address the math and science standards in an integrated, true STEM manner using the TI-Nspire™ CX technology.

2:15 - 3:45 p.m.

Crystal Ballroom Salon C

Seats: 40

90-minute hands-on

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

310 STEM with the TI-Nspire™ CX technology – enhancing both the math and science classroom

TI-Nspire™ CX Navigator™ system

Michael Smith, cbsmith2@gmail.com, Genoa Christian Academy, Westerville, Ohio, United States

Science, technology, engineering and math (STEM)-based projects can bring your science and/or mathematics class alive for your students by bring relevance into your instructions. Come and experience the fun and see how STEM does not have to be costly or difficult. STEM also allows your classes to meet the new standards for methods of scientists and engineers recommended nationally.

2:15 - 3:45 p.m.

Crystal Ballroom Salon D

Seats: 40

90-minute hands-on

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

311 Mathematical modeling and TI-Nspire™ technology

TI-Nspire™ CX Navigator™ system

Caroline Lee, tng.caroline@yahoo.com.sg, Raffles Girls' School (Secondary), Singapore

Mathematical Modelling (MM) is a complex process that requires many skills and competencies. With the growing emphasis on MM in Singapore, an important consideration is how educators can develop the skills and competencies necessary for MM in students in a targeted and meaningful way. In this session, I will share an approach I have taken to teaching MM, and how TI-Nspire™ technology comes into the picture. In particular, I will share an optimization activity that can be approached in several different ways, and hence provide a platform where students can apply different concepts and skills.

2:15 - 3:45 p.m.

Crystal Ballroom Salon E

Seats: 40

90-minute lecture/demonstration

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

312 Programs – a powerful tool for authoring interactive documents with the TI-Nspire™ CX handheld

TI-Nspire™ CX handheld

Marc Garneau, piman314g@gmail.com, @314Piman, Surrey School District Education Centre, Surrey, British Columbia, Canada

The TI-Nspire™ CX technology offers so much potential for students to engage in rich interactive mathematical inquiries. Come learn how programming can harness that potential. We'll explore a variety of existing mathematical documents and how to use programs to make them possible. Some programming experience is helpful but not required.

2:15 - 3:45 p.m.

Crystal Ballroom Salon F

Seats: 40

90-minute hands-on

Advanced

Authoring

313 Full implementation of the TI-Nspire™ CX Navigator™ system in over 150 secondary math classrooms in one district

TI-Nspire™ CX Navigator™ system

Ronda Davis, davis_r@aps.edu, @ronda527, Albuquerque Public Schools, Albuquerque, New Mexico, United States

Co-presenter: Pareesa Shirazi

Instead of adopting a textbook, the 30th-largest school district in the U.S. implemented TI-Nspire™ handhelds and the TI-Nspire™ CX Navigator™ system in all of their high school math classrooms this past year. Come hear their story and see the successes they are experiencing in both teacher and student growth.

2:15 - 3:45 p.m.

Crystal Ballroom Salon K

Seats: 40

90-minute lecture/demonstration

Beginner

Administrator

314 Super Lua users group (SLUG fest)

TI-Nspire™ software

Stephen Arnold, smarnold@me.com, Compass Learning Technologies, Swansea, Texas, United States

Co-presenter: Adrien Bertrand

This session is offered for intermediate to advanced Lua users (*super* Lua users). If you have been honing your Lua skills and would like to be part of the ongoing development of this exciting part of the TI-Nspire™ software solution, then come to this forum and contribute suggestions and ideas. Bring your own laptop and take the next steps in enhancing your Lua expertise.

2:15 - 3:45 p.m.

Crystal Ballroom Salon L

Seats: 40

90-minute hands-on

Advanced

Programming

315 Don't teach what students can discover

TI-Nspire™ CX Navigator™ system

William Caroscio, bcaroscio@gmail.com, @bcaroscio, Elmira, New York, United States

The proper use of computer algebra system (CAS) software allows students to investigate mathematical questions and conjecture about possible solutions. The mathematics that students discover for themselves will be mastered more readily than the mathematics presented in a lecture approach. We will present examples of using CAS for this type of discovery.

2:15 - 3:45 p.m.

Crystal Ballroom Salon M

Seats: 40

90-minute hands-on

Intermediate

Computer Algebra System (CAS)

316 Calculating reminders with children's literature, the TI-15 Explorer™ elementary calculator and manipulatives

TI-15 Explorer™ elementary calculator

Tammy L. Jones, tammyjones@tljconsultinggroup.com, @TLJCG, TLJ Consulting Group LLC, Lebanon, Tennessee, United States

Division is one of the most difficult operations for students to master. Students are often challenged when developing a deep conceptual understanding between remainders and the decimal or fractional part of quotients. Participants will engage in an activity that incorporates children's literature and different remainder situations, and explores models division with arrays as division with remainders. We will investigate how remainders and group size work together to influence the results displayed on a calculator. We will share an additional activity that teachers can use as a center or learning station.

2:15 - 3:45 p.m.

Crystal Ballroom Salon N

Seats: 40

90-minute hands-on

Beginner

Elementary Math

317 #SlowMath: Using TI-Nspire™ technology to look for meaning before the procedure

TI-Nspire™ CX Navigator™ system

Jennifer Wilson, jenniferwilson828@gmail.com, @jwilson828, Northwest Rankin High School, Flowood, Mississippi, United States

Co-presenter: Jill Gough

How might we leverage technology to build procedural fluency from conceptual understanding? What if we encourage sketch noting to show connections? Come experience right-triangle trigonometry and equations of circles through the lens of the slow math movement.

2:15 - 3:45 p.m.

Canary 2

Seats: 80

90-minute hands-on

Beginner

Geometry

318 STEM made easy: bringing math and science together through technology

TI-Nspire™ CX Navigator™ system

Karlheinz Haas, haasconsulting@gmail.com, The Pine School, Stuart, Florida, United States

Ever wonder how to get your colleagues in the math and science departments to join together and use data to learn the mathematics behind the science – or the science behind the math? Our workshop will offer ideas to move from the typical teacher-led classroom to one that focuses on problem-solving and exploratory learning through the use of real data. Additional focus will be on making the science, technology, engineering and math connections between numerical and graphical representations of the data, linking the science to the math. Use only one or multiple sensors for lab-based or in-the-field data collection to collect and analyze data.

2:15 - 3:45 p.m.

Canary 3

Seats: 80

90-minute hands-on

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

319 Visualizing complex numbers with the TI-Nspire™ CX CAS technology

TI-Nspire™ CX Navigator™ system

Gregory Foley, foleyg@ohio.edu, Ohio University, Athens, Ohio, United States

Co-presenter: Stephen Phelps

Attendees will use the TI-Nspire™ CX CAS technology to explore the geometry associated with the arithmetic of complex numbers: adding, subtracting, multiplying, dividing, powers and roots. This will allow us to delve into some algebra of complex numbers – in particular, solving polynomial equations from a graphical point of view. If we use complex numbers as inputs for a polynomial function, we can graph the absolute value of the outputs as a surface using the the TI-Nspire™ CAS handheld's 3-D graphing capability. Way out? Well actually, this ties into expectations of the Common Core State Standards.

2:15 - 3:45 p.m.

Canary 4

Seats: 80

90-minute hands-on

Intermediate

Precalculus

372 Digging deeper into random variables and sampling distributions

TI-Nspire™ CX Navigator™ system

Lisa Conzemius, lconzemius@detlakes.k12.mn.us, @ZemiLisa, Detroit Lakes Senior High School, Detroit Lakes, Minnesota, United States

Random variables and sampling distributions are two very challenging topics for students to understand in statistics. We will work through activities that help students engage and develop a deeper understanding of these topics. We will use the TI-Nspire™ CX CAS handhelds in these activities. Any level of calculator experience is OK.

2:15 - 3:45 p.m.

North Tower: Aruba

Seats: 36

90-minute hands-on

Intermediate

Statistics

373 Sports statistics – using the TI-Nspire™ CX handhelds to connect math and athletics

TI-Nspire™ CX Navigator™ system

Rachael Gorsuch, rachael.gorsuch@gmail.com, Teays Valley High School, Ashville, Ohio, United States

In a world of online fantasy sports leagues and popular high school sports, many students are unaware of the connection with mathematics and statistics. This session will use the TI-Nspire™ handhelds and the TI-Nspire™ CX Navigator™ system to connect sports with the Common Core State Standards. The focus will be on how to achieve the mathematical practices using technology and students' interests.

2:15 - 3:45 p.m.

North Tower: Bahamas

Seats: 36

90-minute hands-on

Intermediate

Statistics

320 Pre-service teacher roundtable: the conference in review

Maria Benzon, maria.benzon@gmail.com, @mariabenzon, University of Houston, Houston, Texas, United States

Co-presenter: Dennis St. John

Pre-service teachers will participate in a roundtable discussion to share ideas and resources and ask questions regarding such topics as pedagogy, classroom instruction, TI technology integration, building a professional network, and more. This session is facilitated by T³™ Instructors who work closely with pre-service teachers. Session attendees have a chance to win a TI graphing calculator.

4 - 5:30 p.m.

Washington

Seats: 40

90-minute lecture

Beginner

General Math

321 Modeling: implement the Common Core Math Practices and make real-world connections

TI-Nspire™ CX Navigator™ system

Nancy Johnson, njohnson@hopedaleschools.org, Hopedale Jr.-Sr. High School, Hopedale, Massachusetts, United States

Co-presenter: Jennifer Stevens

Mathematical modeling is an excellent tool for students to investigate relationships in the real world. Participants will engage in hands-on activities that promote inquiry, gather data, use appropriate mathematics to develop concepts, and analyze and revise approaches. We will use the TI-Nspire™ CX Navigator™ system to enhance the modeling cycle and encourage mathematical discourse. No previous experience is necessary. Participants will share their approaches, explore mathematics in a way that is purposeful and fun for their students, and leave with a standards-based ready-to-use lesson that embraces all of the mathematical practices.

4 - 5:30 p.m.

Tampa

Seats: 40

90-minute hands-on

Beginner

Algebra I

322 Use your TI-84 Plus graphing calculator to answer which comes first – rate of change or slope?

TI-84 Plus CE graphing calculator

Mike Lutz, plutz@csub.edu, Bakersfield, California, United States

Although we are encouraged to introduce mathematical topics in a meaningful context and evolve to the abstractions, slope is still introduced abstractly in many classrooms. We will use our TI-84 Plus CE graphing calculator with scatter plots to explore slope as the rate of change that it is. The models used will include linear, exponential and quadratic functions. The focus will be on the mathematics as we use appropriate tools strategically.

323 Graphing calculator art using the TI-Nspire™ CX handhelds

TI-Nspire™ CX Navigator™ system

Sarada Toomey, saradatoomey@gmail.com, @saradatoomey, Andre Agassi College Preparatory Academy, Las Vegas, Nevada, United States

In this session, participants will learn how to use art and math to review functions and domain and range restrictions. Participants will learn how to use mathematical functions to create artwork, creating their own masterpiece using the TI-Nspire™ CX handheld. This project is suitable in an algebra II or precalculus class to review functions in a manner that appeals to the artistic and creative sides of the student. We will share former student artwork with the participants.

325 Initial conditions? The collaborative work to get close to mathematics concepts using the TI-Nspire™ CX Navigator™ system

TI-Nspire™ CX Navigator™ system

Cesar Lozano Diaz, clozano@ucea.udg.mx, @mat_lozano, University of Guadalajara, Zapopan, Mexico

By using sensors, the TI-Nspire™ CX Navigator™ system, speed, Newton's law of cooling and collaborative work, we will introduce the concept of a differential equation. Using a movement sensor, we will analyze the importance of an initial condition. Using the TI-Nspire™ CX Navigator™ system to determine object position, we will propose questions and rely on previous knowledge (Mathematics Florida Standards [MAFS].912.C.5.1, MAFS.K12.MP.6.1, MAFS.K12.MP.4.1). Using Newton's law of cooling experiment, we will analyze the solution with temperature sensors, compare it with the data taken, and wait for the wow! from the students.

326 Beyond multiple choice: formative assessment for Common Core

TI-Nspire™ CX handheld

Isaiah Carpenter, isaiah.carpenter@sarasotacountyschools.net, Sarasota County Schools, Sarasota, Florida, United States

Co-presenter: Grace Schaeffer

Have you ever tried to increase the level of rigor in your formative assessment to match the rigor of an assessment? We are now in the world of education where multiple choice and true/false are not the only question types that students face. This session will take an in-depth look at the abilities of the TI-Nspire™ CX Navigator™ system. We will show you how to create quick formative assessments that resemble the questions on the standardized test. We will also show you how to best utilize the portfolio section of the TI-Navigator™ classroom learning system.

4 - 5:30 p.m.

St. Louis

Seats: 40

90-minute hands-on

Beginner

Algebra I

4 - 5:30 p.m.

San Francisco

Seats: 40

90-minute lecture/demonstration

Beginner

Algebra II

4 - 5:30 p.m.

New York

Seats: 50

90-minute hands-on

Intermediate

Calculus

4 - 5:30 p.m.

New Orleans

Seats: 50

90-minute hands-on

Intermediate

Formative Assessment

328 Flipping over transformations with the TI-84 Plus graphing calculator

TI-84 Plus CE graphing calculator

Melissa Jackson, melissa.jackson@doe.state.nj.us, Regional Achievement Center 7, Sewell, New Jersey, United States

In this hands-on session, you will experience transformations, rotations and reflections coming alive on the TI-84 Plus CE graphing calculator. See how technology can increase conceptual understanding and make learning math fun! Using these tools improved my instructional techniques, changed my students' attitude toward mathematics, and created a fun, dynamic, student-centered class.

4 - 5:30 p.m.

Denver

Seats: 40

90-minute hands-on

Beginner

Middle Grades Math

329 Growing an understanding of proportional reasoning and algebraic thinking using the TI-84 Plus CE graphing calculator

TI-84 Plus CE graphing calculator

Gloria Beswick, grbeswick@aol.com, @grbeswick, Louisville, Kentucky, United States

Understanding multiplicative relationships and reasoning proportionally is essential to student success in algebra. Participants will engage in hands-on activities designed to develop proportional reasoning at a concrete level and make explicit connections to algebraic thinking. We will explore similarities and differences between proportional and nonproportional relationships using the TI-84 Plus CE graphing calculator. We will highlight comparisons between verbal descriptions, diagrams, tables, graphs and mathematical models of these various relationships in order to build a deep understanding of the connections between proportional relationships, algebraic reasoning and linear functions. We will emphasize the Common Core State Standards for Mathematical Practice in all activities.

4 - 5:30 p.m.

Chicago

Seats: 40

90-minute hands-on

Intermediate

Middle Grades Math

331 Using the TI-Nspire™ CX technology to reach hard-to-reach students

TI-Nspire™ CX Navigator™ system

Jack Witt, jack.witt@knoxschools.org, Karns High School/Knox County Schools, Powell, Tennessee, United States

This session will use the TI-Nspire™ CX technology to engage and assess those students who have traditionally been labeled *hard to reach*. We will look at how to use action/consequence activities to engage students by giving immediate feedback.

4 - 5:30 p.m.

Grand Ballroom Salon 2

Seats: 60

90-minute hands-on

Beginner

General Interest

332 Those precalculus polynomials are applicable in higher mathematics!

TI-Nspire™ CX CAS handheld

Jay Schiffman, schiffman@rowan.edu, Rowan University, Philadelphia, Pennsylvania, United States

A topic covered in a traditional precalculus course entails polynomials and their zeros. In this hands-on workshop, we will show how several precalculus polynomials have rich connections in discrete mathematics, graph theory, linear algebra, number theory and combinatorics. For example, the roots of these polynomials, found in such diverse settings as the golden ratio, Fibonacci-like sequences, and the eigenvalues of graphs and trees lead to the characteristic polynomial, while the vertex coloring of graphs leads to chromatic polynomials. With the aid of the TI-Nspire™ CX CAS handheld, we will explore such polynomials and their zeros.

4 - 5:30 p.m.

Grand Ballroom Salon 3

Seats: 60

90-minute hands-on

Intermediate

General Interest

333 Best-kept secrets of the TI-84 Plus family of graphing calculators

TI-84 Plus CE graphing calculator

Deb Nutt, koalanut@bright.net, @nuttdeb, Celina, Ohio, United States

Every family has their secrets. Come learn features of the TI-84 Plus family of graphing calculators that you may not know about or have never used. We will look at some of the pre-loaded applications and menu items that many people did not know existed. Every time I do this, attendees have ooh, aah moments and walk away saying, *I didn't know we could do that!*

4 - 5:30 p.m.

Grand Ballroom Salon 4

Seats: 60

90-minute hands-on

Beginner

General Interest

336 Face-to-face + online classes = successful students*TI-84 Plus CE graphing calculator**Antoinette Kidwell, antoinette.kidwell@fcps.edu, Bryant Alternative High School, Alexandria, Virginia, United States**Co-presenter: Evangelia Ifantides*

This presentation will demonstrate how to successfully combine online with face-to-face instruction for better understanding of algebraic and geometric concepts. We will share collaborative activities where students use the TI-84 Plus CE graphing calculator to design assessments for use with either tablets or smartphones. Participants will create their own activities for their tablet or smartphone.

4 - 5:30 p.m.**Grand Ballroom Salon 9***Seats: 30**90-minute hands-on**Intermediate**Algebra II***337 Exploring volumes by cross-sections in calculus***TI-Nspire™ CX CAS handheld**Juan Manuel Gonzalez, jmgonzalez004@laredoisd.org, Laredo Early College High School, Laredo, Texas, United States*

Using the TI-Nspire™ CX CAS handheld and Google SketchUp® modeling software, we can import and merge 2-D graphs into a 3-D environment to investigate and better understand the mathematics behind the solids created when calculating volumes by cross-sections. Most students have trouble visualizing these 3-D constructions, since traditional textbooks will only expose them to the graphs of a given function and its cross-sections as it looks on a plane surface. With the TI-Nspire™ CX CAS handheld and SketchUp®, students can see how these solids are constructed from many different vantage points.

4 - 5:30 p.m.**Grand Ballroom Salon 10***Seats: 30**90-minute hands-on**Intermediate**Calculus***338 Project-based lessons in AP* Calculus***TI-Nspire™ CX CAS handheld**Michael Long, milong4@gmail.com, Kapolei High School, Kapolei, Hawaii, United States*

Graduating seniors in Advanced Placement calculus need a way to say *Mahalo* (thank you) to adults who have helped them get to this point. Come see a unique hands-on project-based lesson that allows students to apply calculus and statistics to a project that accomplishes this goal. We will demonstrate how TI-Nspire™ CX CAS handheld technology supports the students' heartfelt projects, which have been well received by both students and adults.

4 - 5:30 p.m.**Grand Ballroom Salon 11***Seats: 60**90-minute lecture/demonstration**Intermediate**Calculus***339 My TI-84 Plus Silver Edition graphing calculator can predict the weather?***TI-84 Plus Silver Edition graphing calculator**Bill Kujawa, kujawab@elmbrookschools.org, Brookfield East High School, Brookfield, Wisconsin, United States**Co-presenter: Tim Owen*

Many of us begin our day by looking outside and asking ourselves, *What will the weather be like today?* Join us as we investigate the relationship between the path our planet takes each year and its effect on the weather we experience each day. Beginning with just a TI-84 Plus Silver Edition graphing calculator and some basic climatology data, we will use regression to create an equation that predicts the weather.

4 - 5:30 p.m.**Grand Ballroom Salon 12***Seats: 60**90-minute lecture/demonstration**Intermediate**Trigonometry***340 Raise ACT* scores with TI-84 Plus Silver Edition graphing calculators***TI-84 Plus Silver Edition graphing calculator**Michael Dorsey, mdorsey@hazelwoodschoools.org, Hazelwood Central High School, Florissant, Missouri, United States*

Learn how specific programs on the TI-84 Plus Silver Edition graphing calculator can help students complete certain types of ACT* problems with more speed and accuracy, as well as help them recall formulas. Through this presentation, you'll be exposed to some frequently asked problems on the ACT* math test and see how TI technology can help students arrive upon their answer in a fraction of the time required to work it out with pencil and paper.

4 - 5:30 p.m.**Grand Ballroom Salon 13***Seats: 60**90-minute lecture/demonstration**Intermediate**Assessment*

341 Using learning styles to become better teachers

TI-84 Plus CE graphing calculator

George Selitto, gselitto@iona.edu, Iona College, New Rochelle, New York, United States

Co-presenter: Roger Blanco

This session provides teachers an activity to help identify their students' learning style or styles. That information can both inform and change the way we teach. When teachers have a better sense of how students learn, and students understand better their preferred learning styles, teachers can plan activities with those styles in mind. When we can help our students become active learners in our classrooms, we all benefit. This session will provide some of the tools to achieve this goal.

4 - 5:30 p.m.

Grand Ballroom Salon 14

Seats: 60

90-minute hands-on

Beginner

Assessment

342 Using the TI-84 Plus graphing calculator to tackle real problems with space garbage

TI-84 Plus CE graphing calculator

Debbie Poss, deborah.poss@cobbk12.org, Lassiter High School, Marietta, Georgia, United States

Co-presenter: Don Slater

Years of space exploration have left us with much space debris encircling the earth. Some pieces are very small, but others are larger. Is this a serious problem now? Will it be a serious problem soon? Look at data and use the TI-84 Plus CE graphing calculator to model the problem and come to your own conclusion.

4 - 5:30 p.m.

Crystal Ballroom Salon A

Seats: 40

90-minute hands-on

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

343 Reaching the breaking point: using spaghetti and the TI-Nspire™ CX handheld to understand inverse variation

TI-Nspire™ CX handheld

Alice Fisher, afisher@rice.edu, Rice University School Mathematics Project, Houston, Texas, United States

In this engaging hands-on activity, participants will find the number of pennies needed to break spaghetti of different lengths. Then they will discover the mathematical relationship between the length of the spaghetti and the weight required to break it using the Data and Statistics application on the TI-Nspire™ CX handheld. We will highlight connections between mathematics and physics through the discussion of Archimedes's law of levers.

4 - 5:30 p.m.

Crystal Ballroom Salon B

Seats: 40

90-minute hands-on

Intermediate

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

344 The fitting room: finding a model of best fit with the TI-84 Plus Silver Edition graphing calculator

TI-84 Plus Silver Edition graphing calculator

Doris Zinck, dazinck@volusia.k12.fl.us, Spruce Creek High School, Port Orange, Florida, United States

Participants will be given real-life (nonlinear) data of various types, enter the data on the TI-84 Plus Silver Edition graphing calculator, examine the scatter plot, and test various regression models to select the model that best fits the data. We will emphasize characteristics of the data (asymptotes, expected future trends), the context of the data and the coefficient of determination. We will then use the model to extrapolate and interpolate other outcomes.

4 - 5:30 p.m.

Crystal Ballroom Salon C

Seats: 40

90-minute hands-on

Intermediate

Precalculus

349 Bluetooth® Low Energy and Lua: create your own STEM scripts

TI-Nspire™ software

Stephen Arnold, smarnold@me.com, Compass Learning Technologies, Swansea, Texas, United States

Co-presenter: Adrien Bertrand

Lua on TI-Nspire™ software has recently added a whole new range of possibilities: creating Bluetooth® Low Energy scripts for the iPad®. See how easy it is to interface with a range of Bluetooth®-enabled devices, particularly the amazing new TI SensorTag 2.0. In addition to sensors ranging from light intensity, barometer and temperature to acceleration and more, this handy device can also serve as a handy remote for driving your TI-Nspire™ Documents! Come along and see how easy this can be. Recommended for intermediate or advanced Lua authors – bring your own laptop with TI-Nspire™ software installed.

4 - 5:30 p.m.

Crystal Ballroom Salon L

Seats: 40

90-minute hands-on

Advanced

Authoring

350 Using the CAS in the sciences to promote the use of CAS in mathematics

TI-Nspire™ CX Navigator™ system

David Young, dayoung7@gmail.com, @davidallyoung, Fayetteville Public Schools, Fayetteville, Arkansas, United States

Since the power of the computer algebra system (CAS) is being used in the sciences quite freely and effectively, it would be nice if our math teachers could see what we are doing. If they could see some examples of the power of CAS in the science class, we believe that more math folks would use CAS in their instruction. Come see some examples and join in the discussion.

352 Seven for seven

Kevin Spry, kspry@ti.com, Brantford, Canada

Join us for a fast-paced, information-packed session as we bring together seven exciting and motivated speakers to each present for seven minutes on a key educational topic. Each speaker will share why their topic excites and motivates them and how it can inspire you. Topics include: Addressing the gender gap in the SAT®, Engineering design to enhance student creativity and learning, The SlowMath movement, Balancing equations in STEM – finding solutions, Show what you know in more than one way, Choosing to lead – giving a voice to students, and Moving forward with implementing Principles to Actions.

374 Probability simulation on the TI-Nspire™ CX handhelds

TI-Nspire™ CX Navigator™ system

David Kohmetscher, davidkohmetscher@claytonschools.net, School District of Clayton, Clayton, Missouri, United States

Co-presenter: Kurt Kleinberg

Why is the World Series a best of seven? Although likely financial in nature, you can make a strong probability argument for the choice of a seven-game series. Using the Lists and Spreadsheet pages as well as some Boolean logic, we will simulate different series lengths to investigate the likelihood that the better of the two teams win the series. Graphical displays of the outcomes will help us realize the mathematical justification for a seven-game series. We will then discuss how to use this method to investigate other probability situations, including the difficult-to-calculate probabilities of dependent events.

4 - 5:30 p.m.

Crystal Ballroom Salon M

Seats: 40

90-minute hands-on

Beginner

Computer Algebra System (CAS)

4 - 5:30 p.m.

Canary 1

Seats: 100

90-minute lecture/demonstration

Beginner

General Interest

4 - 5:30 p.m.

North Tower: Aruba

Seats: 36

90-minute hands-on

Intermediate

Statistics

Sunday Session Details

Come
Learn
Go
Teach

#T3IC

C AP* Calculus from those in the know

Tom Dick, Oregon State University, Corvallis, Oregon, United States

Engage with those in the know in the Advanced Placement calculus arena as they discuss issues and challenges facing educators today. What should teachers be doing to get their students ready for Advanced Placement exams? Why are the scores as they are?

8:30 - 10 a.m.

Grand Ballroom 1/2/3

Seats: 250

90-minute lecture/demonstration

Beginner

Calculus

D Leading learning in deeply digital mathematics classrooms: tools to inform powerful decision-making

Valerie Mills, valerie.mills@oakland.k12.mi.us, Oakland Schools, Ypsilanti, Michigan, United States

Co-presenter: John Staley

The National Council of Teachers of Mathematics, in partnership with the Consortium for School Networking and generous support from Texas Instruments, has begun to develop resources to support schools interested in leveraging the power of digital tools for mathematics instruction. Working with an influential team of mathematics education leaders, technology-based instructional design experts and school-based technology specialists, this partnership has developed a white paper to both prompt productive discussions and inform important decisions in the area of technology-enhanced mathematics instruction. Participants will preview the white paper and learn about other resources being produced as part of this exciting initiative that we call the Iris project.

8:30 - 10 a.m.

Grand Ballroom 4/5/6

Seats: 250

90-minute lecture/demonstration

Beginner

General Interest

E STEM Education: The mISSion imaginaTlon Design Challenge

Moderator: Curtis Brown, Market Strategy Manager, TI Education Technology

Panelists: Erick Archer, Market Strategy Manager, TI Education Technology; Ricky Arnold, NASA Astronaut; Peter Balyta, Ph.D., President, TI Education Technology; Donald James, Associate Administrator for Education, NASA; Becky Kamas, NASA Education Specialist

NASA, in collaboration with Texas Instruments, has launched *mISSion imaginaTlon*, an initiative focused on enhancing student engagement and learning through a series of STEM-focused design challenges and activities. Panelists from NASA and TI will discuss the importance of STEM education for students to succeed in the careers of today and tomorrow and highlight how the *mISSion imaginaTlon* design challenges relate to life on the International Space Station and life in extended space flight ... even to Mars.

8:30 - 10 a.m.

Grand Ballroom 9/10/11

Seats: 250

90-minute lecture/demonstration

Beginner

Connecting Science and Math/Science, Technology, Engineering and Math (STEM)

F Visualizing ratios and proportional relationships: implications for our classrooms

TI-Nspire™ App for iPad®

Michelle Rinehart, mrinehart@esc18.net, @HowWeTeach, Region 18 Education Service Center, Fort Davis, Texas, United States

Co-presenter: Gail Burrill

This interactive discussion will focus on a technology-leveraged approach for teaching ratios, using visualization to inform and illuminate the development of concepts related to ratios and proportional relationships. The approach brings coherence across grades to this tough-to-teach/tough-to-learn content and is designed to confront typical student misconceptions. The session will consider the shifts necessary to develop a real understanding of proportional relationships and the research behind the shifts, and highlight strategies for making this happen in our classrooms.

8:30 - 10 a.m.

Grand Ballroom 12/13/14

Seats: 250

90-minute hands-on

Beginner

Middle Grades Math



Come
Learn Go
Teach

#T3IC

Presenter Index

Presenter Index

	Name	Subject	No.	Day	Time	Room
A	Abel, Sherri	Algebra I	6	Friday	10:15 - 11:45 a.m.	New York
	Adsit, Lynn	Precalculus	284	Saturday	1 - 2 p.m.	Canary 4
	Albright, Ron	Assessment	196	Saturday	9:45 - 10:45 a.m.	Grand Ballroom Salon 12
	Alhashimi, Tina	Computer Algebra System (CAS)	300	Saturday	2:15 - 3:45 p.m.	Grand Ballroom Salon 6
	Allred, Gina	Algebra I	2	Friday	10:15 - 11:45 a.m.	Tampa
	Almon, Matt	General Math	46	Friday	12:45 - 2:15 p.m.	Grand Ballroom Salon 1
	Alves, Paul	Assessment	305	Saturday	2:15 - 3:45 p.m.	Grand Ballroom Salon 13
	Amstutz, Andrew	General Interest	226	Saturday	11 a.m. - noon	Grand Ballroom Salon 4
	Antinone, Linda	Precalculus	20	Friday	10:15 - 11:45 a.m.	Grand Ballroom Salon 12
	Apicella, Linda	Algebra I	54	Friday	12:45 - 2:15 p.m.	Grand Ballroom Salon 11
	Arguijo, Mark	Authoring	301	Saturday	2:15 - 3:45 p.m.	Grand Ballroom Salon 9
	Armontrout, Ronald	Precalculus	56	Friday	12:45 - 2:15 p.m.	Grand Ballroom Salon 13
	Arnold, Stephen	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	128	Friday	3:45 - 5:15 p.m.	Crystal Ballroom Salon A
	Arnold, Stephen	Programming	314	Saturday	2:15 - 3:45 p.m.	Crystal Ballroom Salon L
	Arnold, Stephen	Authoring	349	Saturday	4 - 5:30 p.m.	Crystal Ballroom Salon L
	Ashurst, John	General Interest	118	Friday	3:45 - 5:15 p.m.	Grand Ballroom Salon 3
	Atkin, Kyle	Algebra I	71	Friday	2:30 - 3:30 p.m.	Washington
B	Baker, Leza	Geometry	112	Friday	3:45 - 5:15 p.m.	New Orleans
	Baker, Pamela	Geometry	220	Saturday	11 a.m. - noon	Los Angeles
	Bambrick, Margaret	Algebra I	251	Saturday	1 - 2 p.m.	St. Louis
	Bament, John	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	165	Saturday	8 - 9:30 a.m.	Crystal Ballroom Salon C
	Barbour, Leanne	Geometry	113	Friday	3:45 - 5:15 p.m.	Los Angeles
	Barnard, Jane	Algebra I	34	Friday	10:15 - 11:45 a.m.	Canary 3
	Barrett, Gloria	Statistics	356	Friday	10:15 - 11:45 a.m.	North Tower: Aruba
	Barton, Christy	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	235	Saturday	11 a.m. - noon	Crystal Ballroom Salon A

Presenter Index

Name	Subject	No.	Day	Time	Room
Barton, Ray	General Interest	48	Friday	12:45 - 2:15 p.m.	Grand Ballroom Salon 3
Bauguss, Sarah	Middle Grades Math	79	Friday	2:30 - 3:30 p.m.	Denver
Bell, Murney	Middle Grades Math	150	Saturday	8 - 9:30 a.m.	Chicago
Bellman, Allan	General Interest	15	Friday	10:15 - 11:45 a.m.	Grand Ballroom Salon 5
Benzing, Andrew	Algebra I	215	Saturday	11 a.m. - noon	St. Louis
Benzon, Maria	Middle Grades Math	294	Saturday	2:15 - 3:45 p.m.	Chicago
Benzon, Maria	General Math	320	Saturday	4 - 5:30 p.m.	Washington
Beswick, Gloria	Middle Grades Math	329	Saturday	4 - 5:30 p.m.	Chicago
Beth, Damion	Geometry	256	Saturday	1 - 2 p.m.	Los Angeles
Bird, Sean	Computer Algebra System (CAS)	67	Friday	12:45 - 2:15 p.m.	Crystal Ballroom Salon N
Blaha, Ronn	Algebra II	253	Saturday	1 - 2 p.m.	San Antonio
Blevins, Andy	Statistics	358	Friday	12:45 - 2:15 p.m.	North Tower: Aruba
Bonds, Michelle	Computer Algebra System (CAS)	137	Friday	3:45 - 5:15 p.m.	Crystal Ballroom Salon N
Bonneau, Jacklyn	General Science	203	Saturday	9:45 - 10:45 a.m.	Crystal Ballroom Salon E
Bower, Travis	Algebra II	264	Saturday	1 - 2 p.m.	Grand Ballroom Salon 6
Bowling, Patricia Carroll	Precalculus	146	Saturday	8 - 9:30 a.m.	New York
Brese, Mary	Formative Assessment	119	Friday	3:45 - 5:15 p.m.	Grand Ballroom Salon 4
Briars, Diane	General Math	104	Friday	2:30 - 3:30 p.m.	Canary 3
Broberg, Diane	Statistics	377	Friday	12:45 - 2:15 p.m.	North Tower: Grand Cayman
Brooks, Patricia	Calculus	195	Saturday	9:45 - 10:45 a.m.	Grand Ballroom Salon 11
Broomall, Christopher	Middle Grades Science	240	Saturday	11 a.m. - noon	Crystal Ballroom Salon F
Brown, Curtis	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	E	Sunday	8:30 - 10 a.m.	Grand Ballroom 9/10/11
Brown, Kristin	Administrator	169	Saturday	8 - 9:30 a.m.	Crystal Ballroom Salon K
Browne, Ellen	General Math	225	Saturday	11 a.m. - noon	Grand Ballroom Salon 3
Bruce, Sharon	Formative Assessment	49	Friday	12:45 - 2:15 p.m.	Grand Ballroom Salon 4
Buescher, Michael	Computer Algebra System (CAS)	206	Saturday	9:45 - 10:45 a.m.	Crystal Ballroom Salon L

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Name	Subject	No.	Day	Time	Room
Burkholder, Marsha	Elementary Math	16	Friday	10:15 - 11:45 a.m.	Grand Ballroom Salon 6
Burkholder, Marsha	Elementary Math	208	Saturday	9:45 - 10:45 a.m.	Crystal Ballroom Salon N
Burrill, Gail	Algebra I	37	Friday	12:45 - 2:15 p.m.	Tampa
Burrill, Gail	Statistics	B	Saturday	8 a.m. - 5:30 p.m.	North Tower: Harbor Beach
Byer, Becky	Programming	52	Friday	12:45 - 2:15 p.m.	Grand Ballroom Salon 9
Caison, Rebecca	Algebra I	178	Saturday	9:45 - 10:45 a.m.	Tampa
Campe, Karen	Algebra II	44	Friday	12:45 - 2:15 p.m.	Denver
Canales Pastrana, Rafael R.	Statistics	367	Saturday	9:45 - 10:45 a.m.	North Tower: Bahamas
Carlson, Veronica	Assessment	57	Friday	12:45 - 2:15 p.m.	Grand Ballroom Salon 14
Carosco, William	Computer Algebra System (CAS)	315	Saturday	2:15 - 3:45 p.m.	Crystal Ballroom Salon M
Carpenter, Isaiah	Formative Assessment	326	Saturday	4 - 5:30 p.m.	New Orleans
Carson, Alice	Middle Grades Math	80	Friday	2:30 - 3:30 p.m.	Chicago
Carter, Vicki	Calculus	210	Saturday	9:45 - 10:45 a.m.	Canary 2
Casey, Ruth	Algebra I	175	Saturday	8 - 9:30 a.m.	Canary 3
Casey, Tammy	General Math	152	Saturday	8 - 9:30 a.m.	Grand Ballroom Salon 2
Cauffield, Tom	General Science	239	Saturday	11 a.m. - noon	Crystal Ballroom Salon E
Chan, Yew Fook	Trigonometry	98	Friday	2:30 - 3:30 p.m.	Crystal Ballroom Salon F
Chapman, Louise	Biology	201	Saturday	9:45 - 10:45 a.m.	Crystal Ballroom Salon C
Chatman, Monique	Formative Assessment	197	Saturday	9:45 - 10:45 a.m.	Grand Ballroom Salon 13
Chaves, Edward	Algebra I	106	Friday	3:45 - 5:15 p.m.	Washington
Chesley, Cindy	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	24	Friday	10:15 - 11:45 a.m.	Crystal Ballroom Salon B
Cichocki, Sharon	Algebra II	5	Friday	10:15 - 11:45 a.m.	San Antonio
Cimino, Mike	Middle Grades Science	61	Friday	12:45 - 2:15 p.m.	Crystal Ballroom Salon D
Clark, Sherrina	Algebra II	110	Friday	3:45 - 5:15 p.m.	San Antonio
Cloud, Cory	Statistics	369	Saturday	11 a.m. - noon	North Tower: Bahamas

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Name	Subject	No.	Day	Time	Room
Cocharo, John	Precalculus	88	Friday	2:30 - 3:30 p.m.	Grand Ballroom Salon 10
Cockburn, Karen	General Interest	84	Friday	2:30 - 3:30 p.m.	Grand Ballroom Salon 4
Collins, Ken	Precalculus	248	Saturday	11 a.m. - noon	Canary 4
Conzemius, Lisa	Statistics	372	Saturday	2:15 - 3:45 p.m.	North Tower: Aruba
Crothers, Jody	General Math	85	Friday	2:30 - 3:30 p.m.	Grand Ballroom Salon 5
Cucci, Audrey	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	164	Saturday	8 - 9:30 a.m.	Crystal Ballroom Salon B
Curran, Kristy	Algebra I	38	Friday	12:45 - 2:15 p.m.	St. Louis
Dahan, Jean-Jacques	Geometry	77	Friday	2:30 - 3:30 p.m.	New Orleans
Damaske, Jane	Middle Grades Math	9	Friday	10:15 - 11:45 a.m.	Denver
Daniels, Hugh	General Math	123	Friday	3:45 - 5:15 p.m.	Grand Ballroom Salon 10
Davis, Jon	Computer Algebra System (CAS)	207	Saturday	9:45 - 10:45 a.m.	Crystal Ballroom Salon M
Davis, Ronda	Administrator	313	Saturday	2:15 - 3:45 p.m.	Crystal Ballroom Salon K
Day, Judy	General Science	26	Friday	10:15 - 11:45 a.m.	Crystal Ballroom Salon D
Decovsky, Fred	Algebra I	143	Saturday	8 - 9:30 a.m.	St. Louis
Despain, Jared	Programming	170	Saturday	8 - 9:30 a.m.	Crystal Ballroom Salon L
Dettman, Page	Administrator	100	Friday	2:30 - 3:30 p.m.	Crystal Ballroom Salon L
Diaz, Lien	Programming	278	Saturday	1 - 2 p.m.	Crystal Ballroom Salon L
Dick, Thomas	Computer Algebra System (CAS)	173	Saturday	8 - 9:30 a.m.	Canary 1
Dick, Tom	Calculus	C	Sunday	8:30 - 10 a.m.	Grand Ballroom 1/2/3
Dicker, Debbie	Computer Algebra System (CAS)	32	Friday	10:15 - 11:45 a.m.	Crystal Ballroom Salon N
Disher, Fan	Precalculus	200	Saturday	9:45 - 10:45 a.m.	Crystal Ballroom Salon B
Dodd, Greg	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	129	Friday	3:45 - 5:15 p.m.	Crystal Ballroom Salon B
Dorsey, Michael	Assessment	340	Saturday	4 - 5:30 p.m.	Grand Ballroom Salon 13

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Presenter Index

	Name	Subject	No.	Day	Time	Room	
E	Ellis, Wade	Computer Algebra System (CAS)	281	Saturday	1 - 2 p.m.	Canary 1	
	England, Katie	Formative Assessment	148	Saturday	8 - 9:30 a.m.	Los Angeles	
	Evans, Joel	Statistics	381	Saturday	9:45 - 10:45 a.m.	North Tower: Grand Cayman	
	Everding, Sherry	Algebra I	41	Friday	12:45 - 2:15 p.m.	New York	
	Ewry, Daryl	General Interest	306	Saturday	2:15 - 3:45 p.m.	Grand Ballroom Salon 14	
F	Fagan, Patsy	Computer Algebra System (CAS)	66	Friday	12:45 - 2:15 p.m.	Crystal Ballroom Salon M	
	Farrell, Anthony	Computer Algebra System (CAS)	101	Friday	2:30 - 3:30 p.m.	Crystal Ballroom Salon M	
	Ferneyhough, Fred	Computer Algebra System (CAS)	31	Friday	10:15 - 11:45 a.m.	Crystal Ballroom Salon M	
	Ferneyhough, Lynda	Precalculus	160	Saturday	8 - 9:30 a.m.	Grand Ballroom Salon 12	
	Fisher, Alice	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	343	Saturday	4 - 5:30 p.m.	Crystal Ballroom Salon B	
	Flores, Maria	Administrator	205	Saturday	9:45 - 10:45 a.m.	Crystal Ballroom Salon K	
	Flynn, Peter	Computer Algebra System (CAS)	102	Friday	2:30 - 3:30 p.m.	Crystal Ballroom Salon N	
	Foley, Gregory	Precalculus	319	Saturday	2:15 - 3:45 p.m.	Canary 4	
	Fotsch, Fred	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	163	Saturday	8 - 9:30 a.m.	Crystal Ballroom Salon A	
	Fox, Ray	Authoring	18	Friday	10:15 - 11:45 a.m.	Grand Ballroom Salon 10	
	Fox, Tom	Computer Algebra System (CAS)	243	Saturday	11 a.m. - noon	Crystal Ballroom Salon M	
	G	Gaddis, Scott	Administrator	277	Saturday	1 - 2 p.m.	Crystal Ballroom Salon K
		Gallitano, Gail	Statistics	371	Saturday	1 - 2 p.m.	North Tower: Bahamas
		Galloway, Ian	Physics	237	Saturday	11 a.m. - noon	Crystal Ballroom Salon C
Gapinski, Robin		Assessment	127	Friday	3:45 - 5:15 p.m.	Grand Ballroom Salon 14	
Garcia, Miguel		Middle Grades Math	221	Saturday	11 a.m. - noon	Denver	
Garneau, Marc		Authoring	312	Saturday	2:15 - 3:45 p.m.	Crystal Ballroom Salon F	
Gasque, Betty		General Interest	35	Friday	10:15 - 11:45 a.m.	Canary 4	
Gasque, Betty		Middle Grades Math	298	Saturday	2:15 - 3:45 p.m.	Grand Ballroom Salon 4	
Giannetto, Mary		Statistics	360	Friday	2:30 - 3:30 p.m.	North Tower: Aruba	
Godbold, Landy		Algebra II	74	Friday	2:30 - 3:30 p.m.	San Francisco	

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Name	Subject	No.	Day	Time	Room
Gold, Lindsay	Elementary Math	244	Saturday	11 a.m. - noon	Crystal Ballroom Salon N
Gonzalez, Juan Manuel	Calculus	337	Saturday	4 - 5:30 p.m.	Grand Ballroom Salon 10
Gorsuch, Rachael	Statistics	373	Saturday	2:15 - 3:45 p.m.	North Tower: Bahamas
Gough, Jill	Algebra I	176	Saturday	8 - 9:30 a.m.	Canary 4
Graba, Todd	General Science	131	Friday	3:45 - 5:15 p.m.	Crystal Ballroom Salon D
Graham, Bozena	Calculus	231	Saturday	11 a.m. - noon	Grand Ballroom Salon 11
Griffin, Donald	Calculus	190	Saturday	9:45 - 10:45 a.m.	Grand Ballroom Salon 4
Griffith, Linda	General Math	189	Saturday	9:45 - 10:45 a.m.	Grand Ballroom Salon 3
Guntharp, Marsha	Physics	299	Saturday	2:15 - 3:45 p.m.	Grand Ballroom Salon 5
Haas, Karlheinz	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	318	Saturday	2:15 - 3:45 p.m.	Canary 3
Hale, Kathy	Algebra I	287	Saturday	2:15 - 3:45 p.m.	St. Louis
Hanna, John	Programming	87	Friday	2:30 - 3:30 p.m.	Grand Ballroom Salon 9
Hanna, John	Programming	212	Saturday	9:45 - 10:45 a.m.	Canary 4
Harris, Pamela	Algebra II	144	Saturday	8 - 9:30 a.m.	San Francisco
Hess, Alice	Algebra II	4	Friday	10:15 - 11:45 a.m.	San Francisco
Hicks, Judy	Algebra I	72	Friday	2:30 - 3:30 p.m.	Tampa
Highman, Della	Formative Assessment	194	Saturday	9:45 - 10:45 a.m.	Grand Ballroom Salon 10
Hocutt, Sandra	Algebra I	73	Friday	2:30 - 3:30 p.m.	St. Louis
Horowitz, Susan	Administrator	29	Friday	10:15 - 11:45 a.m.	Crystal Ballroom Salon K
Hourigan, Melissa	Statistics	383	Saturday	1 - 2 p.m.	North Tower: Grand Cayman
Houston, Mike	General Interest	83	Friday	2:30 - 3:30 p.m.	Grand Ballroom Salon 3
Howe, Susan	Middle Grades Math	257	Saturday	1 - 2 p.m.	Denver
Hudson, Valerie	General Math	261	Saturday	1 - 2 p.m.	Grand Ballroom Salon 3
Huffty, Missy	Administrator	64	Friday	12:45 - 2:15 p.m.	Crystal Ballroom Salon K
Hughes Hallett, Deborah	Precalculus	90	Friday	2:30 - 3:30 p.m.	Grand Ballroom Salon 12

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Name	Subject	No.	Day	Time	Room
I lacuone, Leann	Biology	96	Friday	2:30 - 3:30 p.m.	Crystal Ballroom Salon D
I laria, Daniel	Middle Grades Math	228	Saturday	11 a.m. - noon	Grand Ballroom Salon 6
I saacs, John	Programming	242	Saturday	11 a.m. - noon	Crystal Ballroom Salon L
J ackson, Melissa	Middle Grades Math	328	Saturday	4 - 5:30 p.m.	Denver
J ohnson, Nancy	Algebra I	321	Saturday	4 - 5:30 p.m.	Tampa
J ohnston, Ellen	Middle Grades Math	114	Friday	3:45 - 5:15 p.m.	Denver
J ones, Tammy L.	Administrator	99	Friday	2:30 - 3:30 p.m.	Crystal Ballroom Salon K
J ones, Tammy L.	Elementary Math	172	Saturday	8 - 9:30 a.m.	Crystal Ballroom Salon N
J ones, Tammy L.	Elementary Math	316	Saturday	2:15 - 3:45 p.m.	Crystal Ballroom Salon N
K achur, Jessica	Statistics	361	Friday	2:30 - 3:30 p.m.	North Tower: Bahamas
K atz, Anne	Statistics	378	Friday	2:30 - 3:30 p.m.	North Tower: Grand Cayman
K elly, Brendan	Algebra II	252	Saturday	1 - 2 p.m.	San Francisco
K eltner, Scott	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	58	Friday	12:45 - 2:15 p.m.	Crystal Ballroom Salon A
K ennedy, Dan	Formative Assessment	233	Saturday	11 a.m. - noon	Grand Ballroom Salon 13
K ennedy, Ron	General Math	230	Saturday	11 a.m. - noon	Grand Ballroom Salon 10
K idwell, Antoinette	Algebra II	336	Saturday	4 - 5:30 p.m.	Grand Ballroom Salon 9
K lein, Ray	Computer Algebra System (CAS)	69	Friday	12:45 - 2:15 p.m.	Canary 3
K leinberg, Kurt	Calculus	267	Saturday	1 - 2 p.m.	Grand Ballroom Salon 11
K napp, Scott	Trigonometry	28	Friday	10:15 - 11:45 a.m.	Crystal Ballroom Salon F
K oehler, Mike	Statistics	362	Friday	3:45 - 5:15 p.m.	North Tower: Aruba
K ohmetscher, David	Statistics	374	Saturday	4 - 5:30 p.m.	North Tower: Aruba
K ohout, Jessica	Biology	273	Saturday	1 - 2 p.m.	Crystal Ballroom Salon C
K okason, Naomi	Middle Grades Math	185	Saturday	9:45 - 10:45 a.m.	Denver
K ucera, Lee	Statistics	363	Friday	3:45 - 5:15 p.m.	North Tower: Bahamas
K ujawa, Bill	Trigonometry	339	Saturday	4 - 5:30 p.m.	Grand Ballroom Salon 12

Presenter Index

Name	Subject	No.	Day	Time	Room
Lalani, Amin	General Math	260	Saturday	1 - 2 p.m.	Grand Ballroom Salon 2
LaMaster, John	General Interest	13	Friday	10:15 - 11:45 a.m.	Grand Ballroom Salon 3
Lapp, Douglas	Calculus	19	Friday	10:15 - 11:45 a.m.	Grand Ballroom Salon 11
Larson, Matt	General Math	247	Saturday	11 a.m. - noon	Canary 3
Leaman, Kara	Algebra II	39	Friday	12:45 - 2:15 p.m.	San Francisco
Lee, Caroline	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	311	Saturday	2:15 - 3:45 p.m.	Crystal Ballroom Salon E
Lee, Joyce	Algebra II	75	Friday	2:30 - 3:30 p.m.	San Antonio
Lepeska, Jon	Algebra II	86	Friday	2:30 - 3:30 p.m.	Grand Ballroom Salon 6
Lesniewski, Ray	Chemistry	25	Friday	10:15 - 11:45 a.m.	Crystal Ballroom Salon C
Levine-Wissing, Robin	Algebra I	36	Friday	12:45 - 2:15 p.m.	Washington
Littleton, Pam	Middle Grades Math	258	Saturday	1 - 2 p.m.	Chicago
Lobe, Randy	Algebra II	109	Friday	3:45 - 5:15 p.m.	San Francisco
Long, Katelyn	Algebra II	216	Saturday	11 a.m. - noon	San Francisco
Long, Michael	Calculus	338	Saturday	4 - 5:30 p.m.	Grand Ballroom Salon 11
Longueira, Chris	Middle Grades Math	297	Saturday	2:15 - 3:45 p.m.	Grand Ballroom Salon 3
Lozano Diaz, Cesar	Calculus	325	Saturday	4 - 5:30 p.m.	New York
Lukens, Jeff	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	97	Friday	2:30 - 3:30 p.m.	Crystal Ballroom Salon E
Lukens, Jeff	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	246	Saturday	11 a.m. - noon	Canary 2
Lutz, Mike	Algebra I	322	Saturday	4 - 5:30 p.m.	St. Louis
Lyublinskaya, Irina	Computer Algebra System (CAS)	245	Saturday	11 a.m. - noon	Canary 1
Mabbott, Art	Precalculus	51	Friday	12:45 - 2:15 p.m.	Grand Ballroom Salon 6
Mack, Maureen	Middle Grades Science	276	Saturday	1 - 2 p.m.	Crystal Ballroom Salon F
MacKay, Stephanie	General Math	296	Saturday	2:15 - 3:45 p.m.	Grand Ballroom Salon 2
Magner, Philip	Precalculus	125	Friday	3:45 - 5:15 p.m.	Grand Ballroom Salon 12
Magrogan, Serena	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	1	Friday	10:15 - 11:45 a.m.	Washington

Presenter Index

Name	Subject	No.	Day	Time	Room
Mankus, Margo Lynn	Algebra I	157	Saturday	8 - 9:30 a.m.	Grand Ballroom Salon 9
Mara, Pat	Algebra II	288	Saturday	2:15 - 3:45 p.m.	San Francisco
Mariano, Thomas	Algebra I	177	Saturday	9:45 - 10:45 a.m.	Washington
Martinez, Katie	Algebra I	142	Saturday	8 - 9:30 a.m.	Tampa
Mary, Maggie	General Math	187	Saturday	9:45 - 10:45 a.m.	Grand Ballroom Salon 1
McCalla, Jeff	Algebra I	285	Saturday	2:15 - 3:45 p.m.	Washington
McKenny, Jean	General Interest	154	Saturday	8 - 9:30 a.m.	Grand Ballroom Salon 4
McKinley, Kathleen	Statistics	364	Saturday	8 - 9:30 a.m.	North Tower: Aruba
McSpadden, Dona	Geometry	76	Friday	2:30 - 3:30 p.m.	New York
McVay, Peggy	Algebra II	217	Saturday	11 a.m. - noon	San Antonio
Melnyk, Angela	Algebra I	141	Saturday	8 - 9:30 a.m.	Washington
Merriweather, Michelle	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	130	Friday	3:45 - 5:15 p.m.	Crystal Ballroom Salon C
Metcalf, Pam	General Interest	262	Saturday	1 - 2 p.m.	Grand Ballroom Salon 4
Mika, Andrea	Algebra I	213	Saturday	11 a.m. - noon	Washington
Mills, Valerie	General Interest	D	Sunday	8:30 - 10 a.m.	Grand Ballroom 4/5/6
Miltenberg, JoAnn	Algebra I	107	Friday	3:45 - 5:15 p.m.	Tampa
Mitchell, Christopher	Programming	30	Friday	10:15 - 11:45 a.m.	Crystal Ballroom Salon L
Mitchener, Jan	Precalculus	91	Friday	2:30 - 3:30 p.m.	Grand Ballroom Salon 13
Mize, Josh	Statistics	376	Friday	10:15 - 11:45 a.m.	North Tower: Grand Cayman
Monahan, Amy	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	309	Saturday	2:15 - 3:45 p.m.	Crystal Ballroom Salon C
Montero Gaona, Manuel Antonio	General Math	116	Friday	3:45 - 5:15 p.m.	Grand Ballroom Salon 1
Morris, Vonda	Statistics	366	Saturday	9:45 - 10:45 a.m.	North Tower: Aruba
Morstein, Todd	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	59	Friday	12:45 - 2:15 p.m.	Crystal Ballroom Salon B
Moskowitz, Stuart	Precalculus	308	Saturday	2:15 - 3:45 p.m.	Crystal Ballroom Salon B

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	Name	Subject	No.	Day	Time	Room
N	Nakamoto, Jim	General Interest	153	Saturday	8 - 9:30 a.m.	Grand Ballroom Salon 3
	Norrell, Toni	Programming	65	Friday	12:45 - 2:15 p.m.	Crystal Ballroom Salon L
	Nutt, Deb	General Interest	333	Saturday	4 - 5:30 p.m.	Grand Ballroom Salon 4
O	Ogden, Stephanie	Administrator	192	Saturday	9:45 - 10:45 a.m.	Grand Ballroom Salon 6
	Ohl, Roxane	Chemistry	202	Saturday	9:45 - 10:45 a.m.	Crystal Ballroom Salon D
	Olivares, Vidal	General Interest	263	Saturday	1 - 2 p.m.	Grand Ballroom Salon 5
	Oliver, Scott	General Interest	234	Saturday	11 a.m. - noon	Grand Ballroom Salon 14
	Olson, Judith	Algebra I	193	Saturday	9:45 - 10:45 a.m.	Grand Ballroom Salon 9
	Olson, Melfried	Algebra I	229	Saturday	11 a.m. - noon	Grand Ballroom Salon 9
	Owens, Matthew	Algebra II	155	Saturday	8 - 9:30 a.m.	Grand Ballroom Salon 5
P	Pappo, Stan	Geometry	8	Friday	10:15 - 11:45 a.m.	Los Angeles
	Parr, Andi	Algebra I	290	Saturday	2:15 - 3:45 p.m.	New York
	Parr, Richard	Algebra I	250	Saturday	1 - 2 p.m.	Tampa
	Pennell, Adam	Authoring	53	Friday	12:45 - 2:15 p.m.	Grand Ballroom Salon 10
	Perry, Bryson	Authoring	17	Friday	10:15 - 11:45 a.m.	Grand Ballroom Salon 9
	Phegley, Sherri	Formative Assessment	269	Saturday	1 - 2 p.m.	Grand Ballroom Salon 13
	Phelps, Steve	Calculus	147	Saturday	8 - 9:30 a.m.	New Orleans
	Plein, Tami	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	307	Saturday	2:15 - 3:45 p.m.	Crystal Ballroom Salon A
	Poss, Debbie	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	342	Saturday	4 - 5:30 p.m.	Crystal Ballroom Salon A
	Poulsen, Robyn	Algebra II	115	Friday	3:45 - 5:15 p.m.	Chicago
	Prince, Marian	Algebra I	111	Friday	3:45 - 5:15 p.m.	New York

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Name	Subject	No.	Day	Time	Room
Reardon, Tom	Geometry	7	Friday	10:15 - 11:45 a.m.	New Orleans
Reardon, Tom	Computer Algebra System (CAS)	139	Friday	3:45 - 5:15 p.m.	Canary 3
Record, Anthony	Calculus	303	Saturday	2:15 - 3:45 p.m.	Grand Ballroom Salon 11
Reese, Randy	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	199	Saturday	9:45 - 10:45 a.m.	Crystal Ballroom Salon A
Reeves, David	Algebra I	286	Saturday	2:15 - 3:45 p.m.	Tampa
Reniewicki, Rob	General Science	167	Saturday	8 - 9:30 a.m.	Crystal Ballroom Salon E
Rice, Deborah	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	302	Saturday	2:15 - 3:45 p.m.	Grand Ballroom Salon 10
Riebe, Toni	General Science	275	Saturday	1 - 2 p.m.	Crystal Ballroom Salon E
Riggins, Julie	Algebra II	122	Friday	3:45 - 5:15 p.m.	Grand Ballroom Salon 9
Riker, Susan	General Math	82	Friday	2:30 - 3:30 p.m.	Grand Ballroom Salon 2
Rinehart, Michelle	Middle Grades Math	F	Sunday	8:30 - 10 a.m.	Grand Ballroom 12/13/14
Roberts, Doug	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	62	Friday	12:45 - 2:15 p.m.	Crystal Ballroom Salon E
Roberts, Ed	General Science	166	Saturday	8 - 9:30 a.m.	Crystal Ballroom Salon D
Robinson, Delbra	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	23	Friday	10:15 - 11:45 a.m.	Crystal Ballroom Salon A
Roebuck, Valerie	Middle Grades Math	45	Friday	12:45 - 2:15 p.m.	Chicago
Rosas, Marta	Precalculus	55	Friday	12:45 - 2:15 p.m.	Grand Ballroom Salon 12
Rozen, Raymond	Geometry	78	Friday	2:30 - 3:30 p.m.	Los Angeles
Ruda, Chris	Elementary Math	124	Friday	3:45 - 5:15 p.m.	Grand Ballroom Salon 11
Rudolph, Heidi	Authoring	168	Saturday	8 - 9:30 a.m.	Crystal Ballroom Salon F
Ryan, Joanne	Calculus	117	Friday	3:45 - 5:15 p.m.	Grand Ballroom Salon 2
Sanchez, Martin	Geometry	158	Saturday	8 - 9:30 a.m.	Grand Ballroom Salon 10
Santana, Miriam	General Math	12	Friday	10:15 - 11:45 a.m.	Grand Ballroom Salon 2
Scherer, Jerry	General Interest	50	Friday	12:45 - 2:15 p.m.	Grand Ballroom Salon 5
Schiffman, Jay	General Interest	332	Saturday	4 - 5:30 p.m.	Grand Ballroom Salon 3
Schjelderup, Kim	Precalculus	21	Friday	10:15 - 11:45 a.m.	Grand Ballroom Salon 13

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Name	Subject	No.	Day	Time	Room
Schlemper, Ann	Algebra II	22	Friday	10:15 - 11:45 a.m.	Grand Ballroom Salon 14
Schmitz, Sarah	General Interest	270	Saturday	1 - 2 p.m.	Grand Ballroom Salon 14
Scott, David	Middle Grades Math	10	Friday	10:15 - 11:45 a.m.	Chicago
Selitto, George	Assessment	341	Saturday	4 - 5:30 p.m.	Grand Ballroom Salon 14
Sheridan, Debbie	Algebra II	289	Saturday	2:15 - 3:45 p.m.	San Antonio
Shirazi, Pareesa	General Math	151	Saturday	8 - 9:30 a.m.	Grand Ballroom Salon 1
Siebert, Holly	Precalculus	227	Saturday	11 a.m. - noon	Grand Ballroom Salon 5
Sigley, Melissa	Middle Grades Math	149	Saturday	8 - 9:30 a.m.	Denver
Sikora, Todd	Algebra I	218	Saturday	11 a.m. - noon	New York
Slater, Don	Algebra I	254	Saturday	1 - 2 p.m.	New York
Smeltz, Doug	Middle Grades Math	293	Saturday	2:15 - 3:45 p.m.	Denver
Smilowitz, Rachael	Middle Grades Math	186	Saturday	9:45 - 10:45 a.m.	Chicago
Smirnova, Elena	General Math	224	Saturday	11 a.m. - noon	Grand Ballroom Salon 2
Smith, Beth	Algebra I	105	Friday	2:30 - 3:30 p.m.	Canary 4
Smith, Beth	Algebra I	211	Saturday	9:45 - 10:45 a.m.	Canary 3
Smith, Beth	Algebra I	283	Saturday	1 - 2 p.m.	Canary 3
Smith, Charlie	General Interest	92	Friday	2:30 - 3:30 p.m.	Grand Ballroom Salon 14
Smith, Jason	General Interest	282	Saturday	1 - 2 p.m.	Canary 2
Smith, Michael	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	310	Saturday	2:15 - 3:45 p.m.	Crystal Ballroom Salon D
Solomon, Deobra	Statistics	379	Friday	3:45 - 5:15 p.m.	North Tower: Grand Cayman
Soto, Victoria	Middle Grades Math	291	Saturday	2:15 - 3:45 p.m.	New Orleans
Speller, Sandra	Algebra I	121	Friday	3:45 - 5:15 p.m.	Grand Ballroom Salon 6
Spry, Kevin	General Interest	352	Saturday	4 - 5:30 p.m.	Canary 1
Srygley, Corina	Statistics	370	Saturday	1 - 2 p.m.	North Tower: Aruba
St. John, Denny	Algebra II	180	Saturday	9:45 - 10:45 a.m.	San Francisco

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Name	Subject	No.	Day	Time	Room	
Staley, John	Administrator	241	Saturday	11 a.m. - noon	Crystal Ballroom Salon K	
Steckler, Todd	Statistics	368	Saturday	11 a.m. - noon	North Tower: Aruba	
Steinke, Tom	General Math	11	Friday	10:15 - 11:45 a.m.	Grand Ballroom Salon 1	
Stern, Howard	Algebra II	181	Saturday	9:45 - 10:45 a.m.	San Antonio	
Straight, Levi	Geometry	219	Saturday	11 a.m. - noon	New Orleans	
Streeb, Bridget	Geometry	255	Saturday	1 - 2 p.m.	New Orleans	
Stultz, Luke	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	236	Saturday	11 a.m. - noon	Crystal Ballroom Salon B	
Suarez, Lisa	Algebra I	3	Friday	10:15 - 11:45 a.m.	St. Louis	
Swick, Jim	Geometry	184	Saturday	9:45 - 10:45 a.m.	Los Angeles	
Sword, David	General Math	81	Friday	2:30 - 3:30 p.m.	Grand Ballroom Salon 1	
T	Teague, Doris	General Interest	A	Friday	1 - 5 p.m.	North Tower: Harbor Beach
Terrill, Holly	General Math	47	Friday	12:45 - 2:15 p.m.	Grand Ballroom Salon 2	
Terry, Candace	Computer Algebra System (CAS)	209	Saturday	9:45 - 10:45 a.m.	Canary 1	
Thibodeaux, Stacy	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	27	Friday	10:15 - 11:45 a.m.	Crystal Ballroom Salon E	
Thomas, Kim	Algebra II	145	Saturday	8 - 9:30 a.m.	San Antonio	
Toomey, Sarada	Algebra II	323	Saturday	4 - 5:30 p.m.	San Francisco	
Traylor, Kathy	Algebra I	249	Saturday	1 - 2 p.m.	Washington	
Trevino, Alejandra	General Interest	162	Saturday	8 - 9:30 a.m.	Grand Ballroom Salon 14	
True, Chris	Statistics	359	Friday	12:45 - 2:15 p.m.	North Tower: Bahamas	
Trujillo, RuthieAnn	Formative Assessment	161	Saturday	8 - 9:30 a.m.	Grand Ballroom Salon 13	
Tweedy, Sandra	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	94	Friday	2:30 - 3:30 p.m.	Crystal Ballroom Salon B	
U	Underwood, Becky	Programming	135	Friday	3:45 - 5:15 p.m.	Crystal Ballroom Salon L
Underwood, Ricci	Statistics	357	Friday	10:15 - 11:45 a.m.	North Tower: Bahamas	
Usiskin, Zalman	Geometry	174	Saturday	8 - 9:30 a.m.	Canary 2	

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	Name	Subject	No.	Day	Time	Room
V	Vincent, Lynda	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	274	Saturday	1 - 2 p.m.	Crystal Ballroom Salon D
	von Rosenberg, Mark	Algebra I	63	Friday	12:45 - 2:15 p.m.	Crystal Ballroom Salon F
W	Ward, Barbara	Algebra I	214	Saturday	11 a.m. - noon	Tampa
	Washburn, Scott	Geometry	183	Saturday	9:45 - 10:45 a.m.	New Orleans
	West, Stephen	Geometry	292	Saturday	2:15 - 3:45 p.m.	Los Angeles
	Wheeler, Ann	Middle Grades Math	191	Saturday	9:45 - 10:45 a.m.	Grand Ballroom Salon 5
	Whitcotton, Cassie	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	238	Saturday	11 a.m. - noon	Crystal Ballroom Salon D
	Whittington, Tara	Assessment	232	Saturday	11 a.m. - noon	Grand Ballroom Salon 12
	Wilder, Melinda	Assessment	268	Saturday	1 - 2 p.m.	Grand Ballroom Salon 12
	William, Dylan	Formative Assessment	33	Friday	10:15 - 11:45 a.m.	Canary 1/2
	William, Dylan	Administrator	68	Friday	12:45 - 2:15 p.m.	Canary 1/2
	William, Dylan	Administrator	138	Friday	3:45 - 5:15 p.m.	Canary 1/2
	Wilkie, Daniel	General Math	188	Saturday	9:45 - 10:45 a.m.	Grand Ballroom Salon 2
	Williams, Gregory	Physics	60	Friday	12:45 - 2:15 p.m.	Crystal Ballroom Salon C
	Willis, David	Connecting Science and Math/Science, Technology, Engineering and Math (STEM)	272	Saturday	1 - 2 p.m.	Crystal Ballroom Salon B
Wilson, Dennis	Trigonometry	304	Saturday	2:15 - 3:45 p.m.	Grand Ballroom Salon 12	
Wilson, Jennifer	Geometry	317	Saturday	2:15 - 3:45 p.m.	Canary 2	
Wingert, Tracy	Statistics	365	Saturday	8 - 9:30 a.m.	North Tower: Bahamas	
Witt, Jack	General Interest	331	Saturday	4 - 5:30 p.m.	Grand Ballroom Salon 2	
Worcester, Don	Calculus	159	Saturday	8 - 9:30 a.m.	Grand Ballroom Salon 11	

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	Name	Subject	No.	Day	Time	Room
Y	Young, David	Computer Algebra System (CAS)	350	Saturday	4 - 5:30 p.m.	Crystal Ballroom Salon M
Z	Zelkowski, Jeremy	General Math	295	Saturday	2:15 - 3:45 p.m.	Grand Ballroom Salon 1
	Zenigami, Fay	Algebra I	265	Saturday	1 - 2 p.m.	Grand Ballroom Salon 9
	Zinck, Doris	Precalculus	344	Saturday	4 - 5:30 p.m.	Crystal Ballroom Salon C



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Exhibitors

Exhibitors

EXHIBIT HOURS

Friday, Feb. 26, 2016: 10:15 a.m. - 5:30 p.m.

Saturday, Feb. 27, 2016: 8 a.m. - 5:30 p.m.

LOCATION

Orlando World Center Marriott (Crystal/Grand Foyers)

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Texas Instruments Calculator Distributor

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NOTES

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NOTES

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A series of horizontal dotted lines for taking notes.

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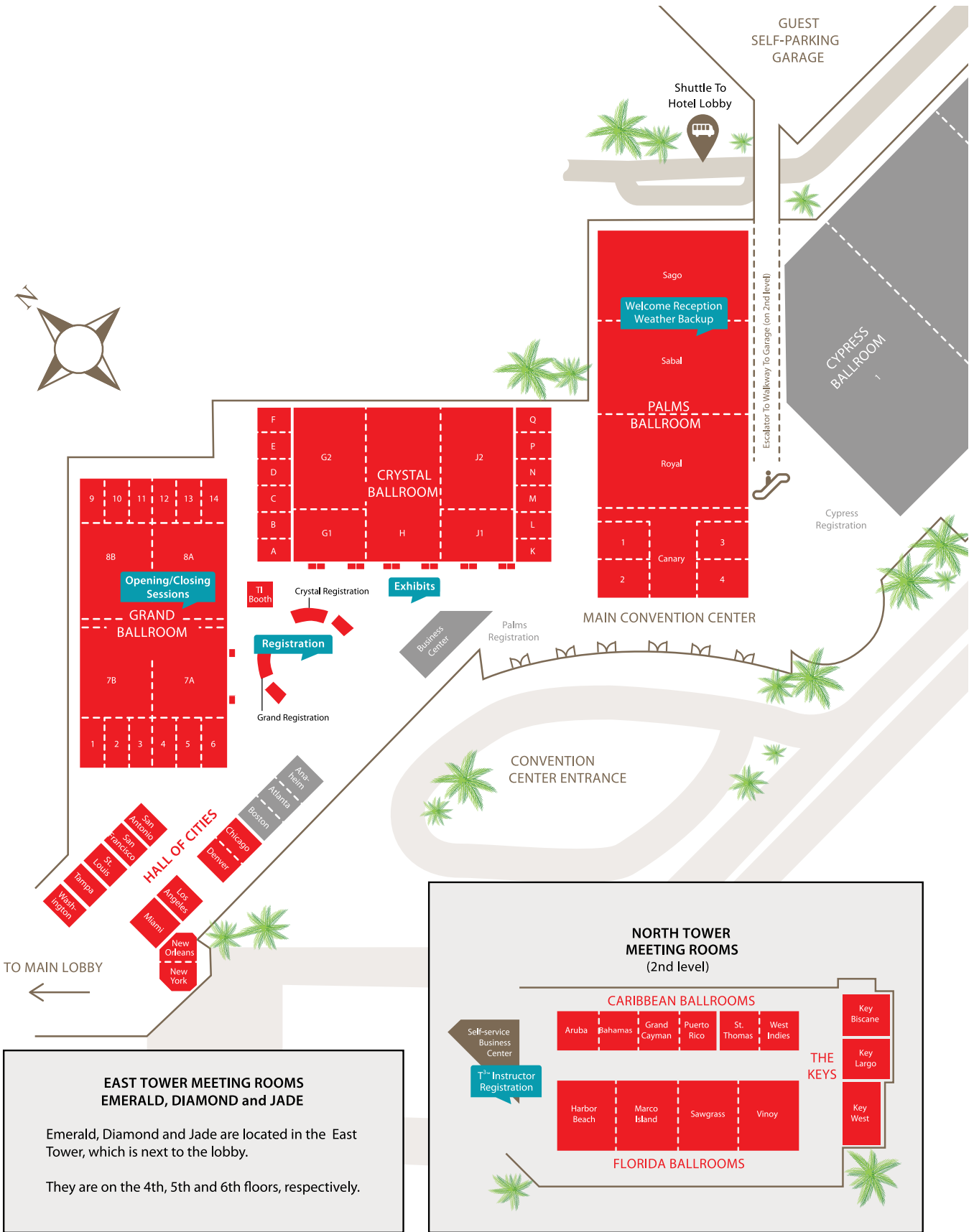
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Orlando World Center Marriott® Hotel Map



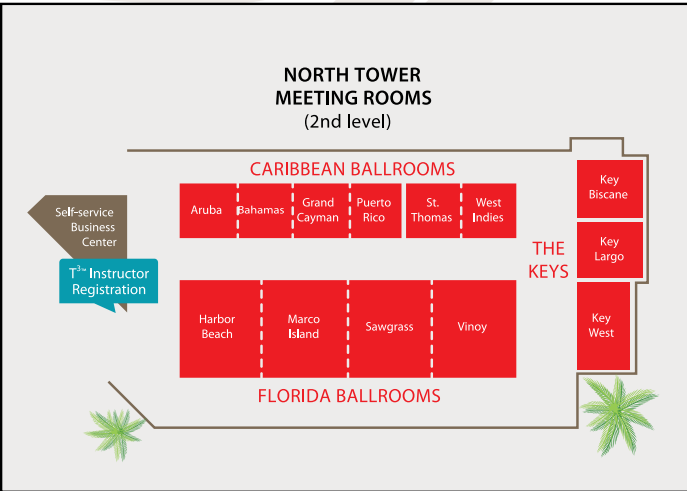
Convention Center Map



**EAST TOWER MEETING ROOMS
EMERALD, DIAMOND and JADE**

Emerald, Diamond and Jade are located in the East Tower, which is next to the lobby.

They are on the 4th, 5th and 6th floors, respectively.



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10 Minutes of Code

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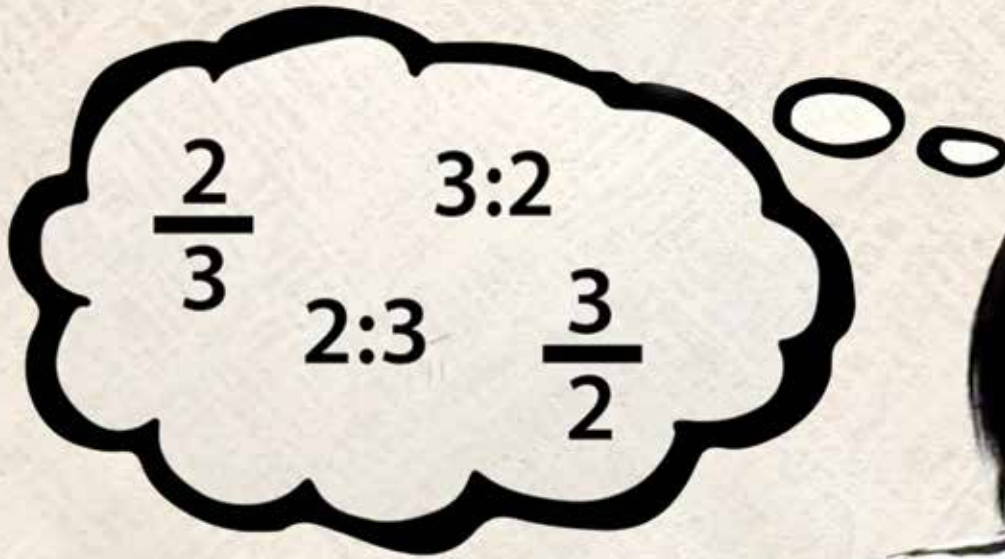
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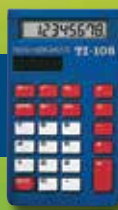
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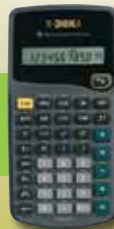
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