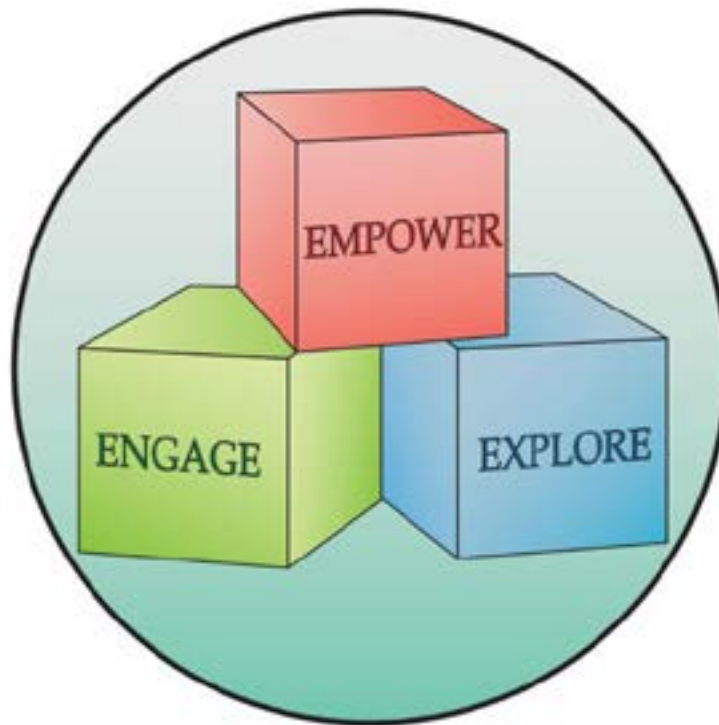


**Association of Mathematics  
Teachers of New Jersey  
29th Annual Two-Day Conference**



**Friday, October 25, 2019  
Saturday, October 26, 2019**

**Crowne Plaza Princeton - Conference Center  
900 Scudders Mill Rd  
Plainsboro Township, NJ 08536**

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Special thanks to the members of the Executive Council that proofread the program and to the Committee Chairs that made this Two Day Conference possible. Thanks to Jeff O'Brien for all of his AV support. Without his behind-the-scenes work, our technology in the conference rooms would not be possible. Thank you to all presenters who volunteered their time to share their knowledge and experience.



AMTNJ Two-Day Conference, Fall 2018.

Please note that the schedule is subject to change due to the availability of our volunteer speakers. All changes will be posted on

<http://amtnj.org/register-for-the-annual-two-day-conference/>

Follow us [@amtnj](#)

[#amtnj2019](#)

## Conference Strands

### **Professionalism, Equity, Advocacy** PROF

Sessions in this strand will help you to grow as a supporter of mathematics education. Those sessions are about professional learning communities, coaching and mentoring. Join the sessions to learn about how other leaders in mathematics address equity in mathematics education and promote a growth mindset. Become an effective advocate for teachers and students.

### **Pedagogy and Instructional Practice** PRACT

Sessions in this strand will focus on the variety of instructional strategies that help students to understand, experience and love mathematics. Join the presenters in doing and discussing mathematics from students' point of view. Learn strategies that will help your students to strengthen their ability to explore, reason and problem-solve.

### **Assessment for and of Learning** ASSESS

Assessment plays an important role in our profession. How do we know that students know? Do they really know what we think they know? Join sessions in this strand to learn and experience different ways mathematics educators use assessments to support and extend learning.

### **Building Mathematical Knowledge for Teaching** KNOW

Doing mathematics is so much fun! Sessions in this strand will focus on doing fun mathematics that motivates students and helps them to see the beauty of mathematics. Presenters will share a variety of activities that provide students with opportunities to learn mathematics by connecting various representations and topics across the grade levels.

## Registration

**Registration is required for admittance to sessions and exhibits.**

[Online Registration](#)

[Registration by Mail/Fax](#)

The Registration Desk will be located near the front doors of the hotel, directly across from the Front Desk. Upon arrival at the conference, please stop at the Registration Desk to pick up your Conference Package. The package will include your name badge, program booklet, and dinner banquet tickets (if purchased).

### **Registration Hours:**

Friday, October 25, 2019 7:00 AM – 2:00 PM

Saturday, October 26, 2019 7:00 AM – 12:00 PM

## **Photography, Audio, and Video Recording**

The Conference is held in a public space, therefore we do not prohibit participants, exhibitors, and sponsors from photographing, video or audio-taping some Conference activities. AMTNJ reserves the right to use images taken at the Conference with your photograph and/or likeness on social media and/or in future marketing materials. AMTNJ is NOT responsible for individual attendee's use of your image or likeness. For CONCERNS about your image or likeness being used in this manner, please contact the event organizers.

### **Exhibitors**

Friday, October 25, 2019 7:00 AM – 4:00 PM

Saturday, October 26, 2019 7:00 AM – 3:00 PM

All of our Exhibitors will be located in the Common Area of the 2nd Floor.

### **Professional Development Hours**

AMTNJ is an approved provider of PD hours by the NJ Department of Education. The professional development certificate is included at the end of this Program.

### **Ticketed Sessions**

The only tickets routinely issued for the conference are those purchased for the dinner banquet. Sessions do not require tickets; all seating is first-come, first-served.

### **Parking**

Parking at the hotel is on a first-come, first-served basis.

### **Dining**

Lunch and dinner may be purchased at [Forrestal Grille](#) which is located at the Lobby Level or [Flight Lounge](#) located at the Mezzanine Level.

### **Special Needs**

The Conference Committee invites all persons with special needs to contact the hotline (732-788-1257) with any requests. Requests for such accommodations must be received no later than October 17, 2019 but we will do our best to accommodate after that date.

### **Hospitality Desk**

The Hospitality Desk will be located on the third floor by the glass doors near the entrance. Have a question or concern? Visit the desk to have your needs addressed.

## First-Timers' Sessions

First-Timers' Sessions are planned for Friday morning, October 25, and Saturday morning, October 26, at 7:15 AM in Gallup room. These special sessions are for those participants who are attending their first AMTNJ Two-Day Conference.

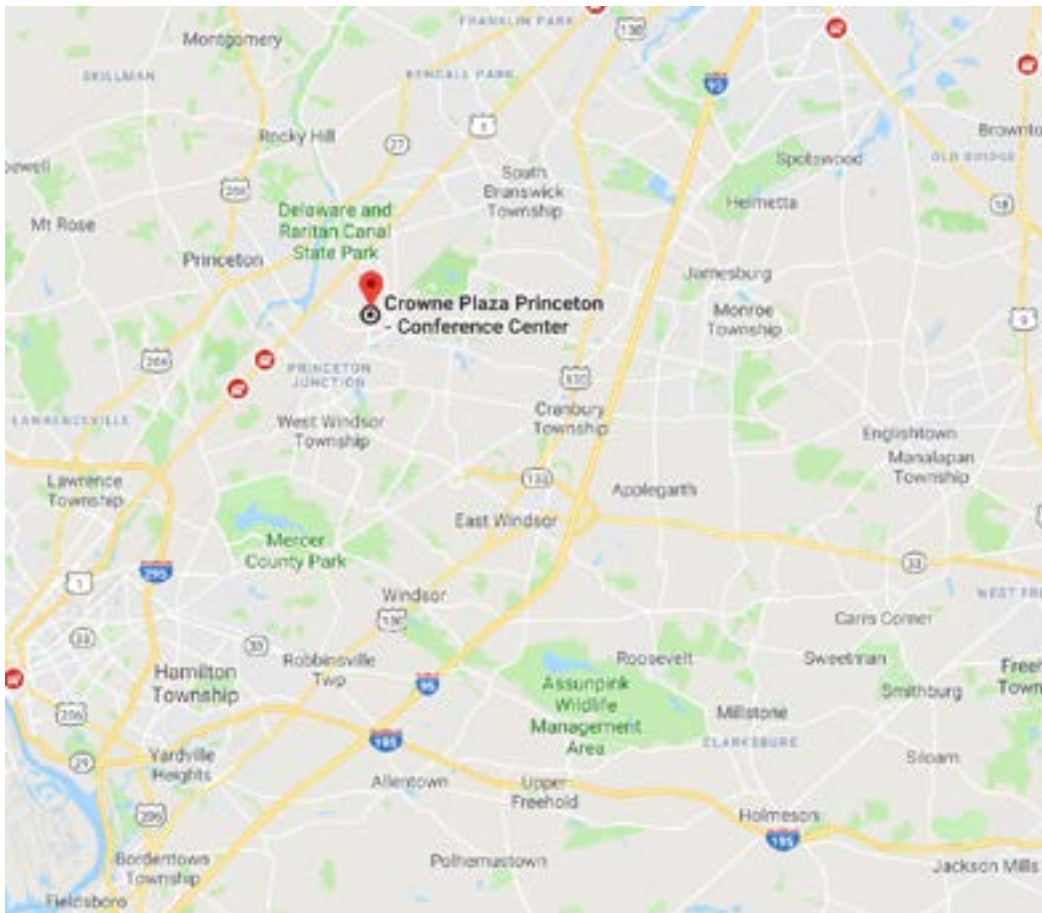
## Lodging

If you plan on staying overnight, please make your hotel reservations directly with the Crowne Plaza in Plainsboro and ask for the AMTNJ room rate. You can also use the following link to make your reservation: [AMTNJ Two Day Conference Lodging](#).

## Directions to The Conference Center

**Crowne Plaza Princeton - Conference Center**

**900 Scudders Mill Rd, Plainsboro Township, NJ 08536**



# Special Functions

## Thursday, October 24

7:00pm – 9:00pm

Join us for a Trivia Game, Networking and just FUN!

## Friday, October 25

2:45pm – 3:45pm

Past Presidents' Reception: By Invitation Only

3:45pm – 5:00pm

President's Reception: Open to ALL

5:00pm – 6:30pm

AMTNJ Annual Business Meeting: Open to ALL

## Dinner Banquet and Max Sobel Award Presentation

(requires advance registration)

- [Cranbury Inn](#), 21 South Main Street, Cranbury
- 7:00pm – 9:30pm.
- You can purchase your ticket at the time of registration or afterwards using the link [Friday Banquet](#) on a first-come, first-served basis if seating is still available.
- The cost per person is \$30.00. Co-sponsored by AMTNJ.



## Saturday, October 26

3:30pm – 4:00pm

Close-out and Prizes. Snacks are provided by EdGems.

**A special Thank You is extended to our event sponsors!**

**Texas Instruments is sponsoring our Friday afternoon President's Reception**

**EdGems is sponsoring our Saturday afternoon close-out session.**



# Thank You To Our Wonderful Exhibitors!!

Visit the Exhibitors throughout the conference and take advantage of the many opportunities to explore new products, services, and technologies offered by participating companies. All of our Exhibitors will be located in the Common Area of the 2nd Floor.

CPM Educational Program

EAI Education

First In Math

Mathspace

National Geographic Learning/Cengage

Pearson K-12 Learning

Texas Instruments



# AMTNJ 2019 Board of Trustees

## Elected Members

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Retired

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Freehold Regional  
High School District

### 1st Vice President

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Millburn High School

Roger Marchegiano  
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(vacant)

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Norma Boakes  
Richard Stockton College of NJ

Mary Marks  
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Amy Mosser  
Seneca High School

Anne Paoletti Bayna  
Clearview Regional High School

## Appointments

### By-Laws Committee

Neil D. Cooperman  
Millburn High School

### Community College Liaison

Constance Calandrino  
Hudson County Community  
College

### DIMACS Workshops Coordinator

Neil D. Cooperman  
Millburn High School

Joseph G. Rosenstein  
Retired

### Future Teachers Liaison

James Clayton  
Saint Peter's University

### Historian

J. Michael Nuspl  
Retired

### Journal Committee

Reginald Luke, Editor-in-Chief  
Retired

Norma Boakes  
Richard Stockton College of  
New Jersey

James Clayton  
Saint Peter's University

Jay Schiffman  
Rowan University

### Math Contest High School Committee

Arpi Lajinian  
Northern Valley Regional High  
School – Old Tappan

### Math Contest Middle School Committee

Jelena Komitas  
Freehold Regional  
High School District

Coshetty Vargas  
Washington Park School

### NCTM Liaison

Neil D. Cooperman  
Millburn High School



# AMTNJ 2019 Board of Trustees

## Appointments

### **Newsletter Editor**

Mark Russo  
Pascack Valley Regional  
High School District

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Nadine Williams  
Newark Public Schools

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Thomas Walsh  
Kean University

### **Online Learning Liaison**

Jerry Tuttle  
University of Phoenix

### **Teacher Outreach – PD on Dimand**

Laura Champion  
Parsippany High School

### **Rutgers Precalculus Conference Co-Chairs**

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Millburn High School

### **Social Media Liaison**

Nicole Ealey  
Union Middle School

### **Speaker Liaison**

Judith T. Brendel  
Retired

### **Special Education Conference Co-Chairs**

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Retired

Kathleen Wallace

Madison Public Schools

### **Special Education Liaison**

Julie Norflus-Good  
Ramapo College of New Jersey

### **State Department of Education Liaison**

Melissa Jackson

### **Supervisors & NCSM Liaison** (vacant)

### **Technology Liaison**

Brian Rawlins

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New Brunswick High School

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### **Webmaster**

Mark Russo  
Pascack Valley Regional  
High School District

### **Administrative Assistant**

Susan Landers  
AMTNJ

## AMTNJ Calendar of Events

AMTNJ is committed to keeping math teachers informed. We have an annual calendar of events that includes one day conferences, outreach programs that come to your school, summer learning institutes, and Web Professional Development – right from your computer. In addition, we offer Rutgers University and AMTNJ jointly organized events such as the PreCalculus Conference and DIMACS workshops. Lastly, we issue journals and newsletters that cover a wide array of topics that are pertinent for the mathematics educator.

Also, AMTNJ offers several programs that are designed to spark students' interest in mathematics. There are art exhibit contests, math contests, button contests, and scholarship programs. Please be sure to visit our website at [www.amtnj.org](http://www.amtnj.org) and follow us on Twitter [@amtnj](https://twitter.com/amtnj) for up to date information on each conference as well as current issues that affect math teachers in New Jersey. On our website you will find links to other math organizations, job opportunities, and journals and newsletters previously printed by our organization.

### Future AMTNJ Events:

November 2019 - May 2020	AMTNJ/DIMACS Workshops
December 4, 2019	11th Annual Special Education & Mathematics Conference: "Equity and the Teaching of Mathematics" Ramada Plaza Hotel and Conference Center, Monroe Township, NJ
December 11, 2019	43rd Annual High School Math Contest & 8th Annual Middle School Math Contest
TBA	2020 NJECC Conference Montclair State University, Montclair, NJ
TBA	AMTNJ/Rutgers Precalculus Conference Rutgers University
December 2019 - March 2020	The AMTNJ Annual Scholarship Awards Drive. Scholarship applications are accepted.
March 2020	Job Fair Location TBA
July 2020 New <sup>3</sup>	Summer Conference: A joint conference of association of teachers of AMTNYS (New York), ATMNE (New England), and AMTNJ (New Jersey) Siena College, near Albany, NY
July-August 2020	AMTNJ Summer Institutes
TBA	Annual Two-Day Conference
TBA	Special Education & Mathematics Conference
December 9, 2020	44th Annual High School Math Contest & 9th Annual Middle School Math Contest

7:15 A.M. – 7:45 A.M.

**1. First Timers' Session****General Interest**

An orientation for the program booklet and the conference.

**Stephanie Cooperman**

Association of Math Teachers of New Jersey, President

8:00 A.M. – 9:00 A.M.

**2. PROF****Bold Leadership: Re-Imagining Professional Learning at the State and District Level****General Interest**

Schools inherently know their professional learning needs and what they would try if given the opportunity! The State of Delaware and the Baltimore County Public Schools did exactly that – provided systemic support through a competitive grant for schools to design their professional learning. Join this session to learn how the two programs were structured with a focus on Thomas Guskey's work. Examples and handouts will be shared.

**Sue Vohrer**

NCSM Eastern Region 2 Director, MD

svohrer@mathedleadership.org

**3. PRACT****Have No Fear - Get Your Teacher Super Power Here****General Interest**

Engage, Empower, and Educate even your toughest students. Session will equip educators with a robust strategy to deal with most EVERY, low-level classroom behavior that competes or interferes with classroom instruction while still cultivating a classroom environment grounded in dignity and respect. Decrease discipline challenges and increase academic performance.

**Roxanne Tsambarlis**

Belle Vernon Area School District, PA

rck745@comcast.net

**10. PRACT****Just-Right Games: Developing Fluency for All Learners****PreK-2**

If we are to meet the needs of all learners, differentiation is essential. An enduring question is, if I pull a small group of students, what is everyone else doing and how do I manage their learning behaviors. In this session we will share specific structures we have developed to help teachers differentiate student learning and maintain sanity.

**Jennifer Costanzo**

Metamorphosis Teaching Learning Communities, NY  
jmoco7109@gmail.com

**Antonia Cameron**

Metamorphosis Teaching Learning Communities, NY  
antonia@metamorphosistlc.com

**4. PRACT****Increasing Fluency with Math Games****PreK-5**

Fluency is accuracy, efficiency, flexibility, and understanding. It is multifaceted and commonly misunderstood. Want your students to achieve fluency? Then math games are your answer! Work with us to implement games into your classroom that will help increase student engagement, mathematical discourse and reasoning, and promote self-reflection in students.

**Maria Magro**

Passaic Public Schools, NJ

mmagro@passaicschools.org

**Ningel Bhuta**

Passaic Public Schools, NJ

nbhuta@passaicschools.org

**5. PRACT****Number Talks****3-8**

Number Talks is a great way to warm up students to tap into how they conceptually understand a mathematical topic. This may be something as simple as addition or more advanced as solving quadratic equations. This is ideal for all grade levels but examples discussed will be for grades 3-8.

**JoAnna Castellano**

New Brunswick High School District, NJ

Joanna\_castellano@nbpsnj.net

@JoAnnaMCastell1

**6. PRACT TECH****Differentiate on the Daily****6-12**

Learn how to "Differentiate on the Daily" using Quizizz. Participants will experience the ease of creating and implementing a daily formative (pre) assessment and using the data to form small groups. Participants will walk away with step-by-step instructions and strategies ready to be implemented immediately. Participants should have one-to-one or a class set of devices.

**Jodi Dunkelman**

Edison Board of Education, NJ

jodi.dunkelman@edison.k12.nj.us

**7. PRACT****Teach Students to Understand and Love Math. Have Fun!!!****6-12, General Interest**

Would you like your students to say things like "I finally understand math" and "Wow, this class goes by so fast"? With well over 30 years of teaching experience, I will show how to make your students actually look forward to coming to class every day. You will not be disappointed.

**Michael Carlucci**

Passaic Valley High School, NJ

carluccim@pvhs.k12.nj.us

**8. PRACT TECH****There Is an APP for That! - Teaching Algebra with TI-84**

6-12

Learn what is hidden under the APPs key on your calculator. Explore several calculator really cool applications for teaching and learning algebra in middle and high school.

**Irina Lyublinskaya**

Teachers College, Columbia University, NY  
irina.lyublinskaya@gmail.com  
@ilyublin

**9. PRACT ASSESS****Using Choice Boards in Mathematics Classrooms**

6-12

Let's personalize student learning through the use of Choice Boards! Choice Boards can be used in various areas of the classroom and include various types of activities for all learning styles. We will focus on three types of Choice Boards: Exploration, Application, and Assessment.

**Audra Ryan**

Middletown Township Public Schools, NJ  
ryana@middletownk12.org

**Jacque Tishler**

Middletown Township Public Schools, NJ  
tishlerj@middletownk12.org

**10. PRACT****Hands-on Learning: Gaining Knowledge by Experience**

6-12

Glue sticks, crayons, rulers, rice, oh my!!!!!! Hands on math activities for middle and high school math students. We all know that students learn better by doing. I will go through activities for algebra through calculus. You get to bring home the craft and models that you make.

**Deborah Maher**

Monmouth County Academy of  
Allied Health and Science, NJ  
dmaher@ctemc.org  
@arrows4deb

8:00 A.M. – 9:30 A.M.

**11. Featured Presentation PROF****Alternative Pathways for Struggling Students to Get 4 Math Credits**

9-12



Two alternatives to Algebra 2 and Precalculus, Advanced Algebra with Financial Applications, and Hands-On Statistics will be presented. These rigorous courses have only Algebra 1 as a prerequisite, and they allow students who might not succeed in Algebra 2 and Precalculus to gain skill, confidence and four years of math credits.

Robert Gerver, received the Presidential Award for Excellence in Mathematics Teaching from President Ronald Reagan in 1988, and his Ph.D. from NYU in 1990. He has authored 25 math books and numerous journal articles. His math research program, Writing Math Research Papers, received the 1997 Chevron Best Practices in Education Award as the premier high school mathematics course in the USA. Dr. Gerver taught at North Shore High School on Long Island for 40 years, and was inducted into the LI Math Educators Hall of Fame in 2016 and the NYS Math Educators Hall of Fame in 2017. He currently teaches at The Institute for Creative Problem Solving at SUNY Old Westbury, in a math research program for high school students from all over Long Island.

**Robert Gerver**

The Institute for Creative Problem Solving, NY  
rgerver@optonline.net

9:00 A.M. – 10:30 A.M.

**12. ASSESS****Conferring Essentials in the Elementary Classroom: Tools of the Trade**

K-5

Why is conferring so difficult for many teachers? This session will explore the essential tools teachers need to engage in skillful conferences with students. These include being able to analyze students' written work; craft their opening comments/questions so that student reasoning is immediately accessed; & access students' emotions about math.

**Stephanie Slabic**

Metamorphosis Teaching Learning Communities, NJ  
stephanie@metamorphosistlc.com

**Antonia Cameron**

Metamorphosis Teaching Learning Communities, NY  
antonia@metamorphosistlc.com

**13. PRACT**  
**Algebra Tiles, Polynomials to Completing The Square**

**8-12**

The purpose of this presentation is to educate teachers in the use of Algebra Tiles from simplifying polynomials to completing the square. Participants will experience lessons and hands on use with the tiles.

**Timothy Scripko**

CPM Educational Program, PA  
 timscripko@cpm.org

**9:30 A.M. – 10:30 A.M.**

**14. PROF**  
**Challenges in Mathematics Education: A Call to Action**

**General Interest**

My annual address about the state of mathematics education in NJ (and throughout the country) including thoughts about necessary and long overdue changes that need to be made in curriculum, instruction and assessment.

**Eric Milou**

Rowan University, NJ  
 milou@rowan.edu  
 @drMi

**15. PRACT**  
**Can't Get Enough of Sense-Making? Engagement Through Games**

**PreK-2**

Help your students deepen their sense-making and develop strategic mathematical reasoning through game-playing. We will be exploring low floor, high ceiling non-digital math games that only require common classroom materials. Participants will leave with a virtual folder of engaging games, organized by domain and grade level, for immediate use!

**LeighAnn Layton**

Brick Township Public Schools, NJ  
 llayton@brickschools.org  
 @leighann\_layton

**Nan Evans**

Brick Township Public Schools, NJ  
 nevans@brickschools.org  
 @nan\_evans

**16. PRACT**  
**Gimme More Math! Supercharge Your Math Class with Hands-on Learning**

**PreK-5**

Kids love math when it's hands-on, playful, and offers just the right challenge. What's more, research tells us that these hands-on experiences "stick" better than abstract ones. Review the research on how students engage in math learning; then "walk the talk" with standards-aligned activities that bring math class to life.

**Laura Overdeck**

Founder, Bedtime Math Foundation, NJ  
 laura@bedtimemath.org

**Shayna Sackett-Gable**

Bedtime Math Foundation, NJ  
 shaynasackett@gmail.com

**17. PROF**  
**Less Equals More (<=>)**

**3-8**

As educators we have all the tools already in front of us. It just requires some creativity to help bring it to life. Less = More is an encouraging approach to help teachers realize they can assess and teach while their students are learning and deeply understanding the content. Grow while Learning!!!

**Amy Miele-Wilkerson**

Franklin Township Public Schools, NJ  
 amiele@franklinboe.org

**18. PRACT TECH**  
**Escape the Google Form: Breakouts You Can Use Monday!**

**6-12**

Use student collaboration and physical movement to engage students through the power of Google Forms and description validation. I will walk you through this workshop that you can apply to a lesson of your choice!

**Kristen Huang**

Mendham Borough School District, NJ  
 huang@mendhamboroschools.org  
 @khuangedu

**19. KNOW**  
**The Mathematics of Love**

**9-12**

Mathematics is used in more places than ever nowadays. But what does mathematics have to tell us about love? The speaker will discuss the Golden Ratio in finding an attractive partner, and the Optimal Stopping Problem in deciding how soon to stop in choosing among candidates for a partner. This is a G-rated talk.

**Jerry Tuttle**

University of Phoenix, NJ  
 fcas@aol.com

**20. PRACT TECH****Making Learning Visual in Algebra, Geometry, and Trigonometry**

9-12

Our students are the Youtube, Netflix, and playing games generation. Why are we still teaching them the same way as teachers taught students 50 years ago? Students are more engaged in a highly collaborative, active, and visual mathematics classroom. Participants will learn some strategies to teach students to effectively collaborate, visualize Algebra and Trigonometric concepts and to bring stagnant Geometry diagrams to life through videos and animation.

**Dianna Sopala**

Northern Valley Regional High School - Demarest, NJ  
diannamsopala@yahoo.com

**21. PRACT TECH****Using Internet Data to Engage Your Statistics Classes**

9-12

Discussion will be on statistics application exercises written using data from reputable business/economic websites. The topics range from Descriptive Statistics to Probability to Inferential Statistics. Exercises illustrated can be done using both graphing calculators and Excel.

**Cathleen Zucco-Teveloff**

Rider University, NJ

**Jeffrey Teveloff**

Business Consultant, NJ

**22. PROF****Aligning Formative and Summative Assessments to NJSL**

9-12

Are the grades that students earn a good indicator of student knowledge? We will provide you with ways to allocate common core standards into units, and develop formative/summative assessments linked to those standards. We will also offer ways to have students self-assess their content understanding. Bring one unit worth of assessments (quizzes/tests/etc) and the grading policy for your course(s).

**Kevin Dziuba**

Rancocas Valley Regional High School, NJ  
kdziuba@rvrhs.com

**Amanda Mihalic**

Rancocas Valley Regional High School, NJ  
amihalic@rvrhs.com

10:45 A.M. – 11:45 A.M.

**23. Keynote Presentation PRACT****The Dinner Table Test: Pass the Stake!****General Interest**

We assume that it's important to have state standards, to have our students take reasonable state exams, and to have teachers use exam results to improve mathematics programs and instruction. But what about the Dinner Table Test? What will your students say when asked: "What did you learn in your math class today?" We will discuss the

components of this test and make suggestions on how your students can pass it with flying colors.

During his tenure at Siena, Jim Matthews has taught mathematics, computer science, and courses for the education department including supervision of student teachers. Prior to joining the faculty at Siena, Jim was a secondary mathematics teacher in Chatham, NY, and he has taught mathematics for many years in kindergarten through 6th grade classrooms. Jim has given hundreds of conference presentations and written articles based on ideas for improving the teaching of mathematics and computer science. Jim has conducted numerous workshops for mathematics educators, directed and consulted on many grant projects, and helped establish undergraduate and graduate programs for mathematics and science teachers at Rensselaer Polytechnic Institute. Jim has been recognized with a NYNEX award for Excellence in Education, with the Siena College Teaching Award and was an inaugural inductee into the New York State Mathematics Educators Hall of Fame.

**Jim Matthews**

Siena College, NY  
matthews@siena.edu

12:00 P.M. – 1:00 P.M.

**24. PROF****1 + 1 = Success****General Interest**

Today's classrooms have students with a diverse range of abilities and needs. Co-teaching brings together two professionals who can use their expertise to design learning experiences that are tailored to meet the unique needs of all students. Participants will learn strategies about how to work collaboratively in an inclusion classroom.

**Julie Norflus-Good**

New Jersey Council For Exceptional Child  
jandcgood@msn.com



**25. PRACT**  
**STEM in Pop-Up Books – Empowering Students to Learn Math**

**PreK-5**

Empowering students to learn math begins with motivation through engagement. Students strengthen math skills by creating pages in a pop-up book. This activity can be differentiated to fit students' ability levels for the elementary grades. This is a hands-on workshop and will be followed by discussion about assessing this mini-project.

**Sandy Vorensky**

Metuchen School District, NJ  
 sbvorensky@metboe.k12.nj.us

**26. PRACT**  
**Math Rocks!**

**PreK-8**

"Math Rocks!" is a unique and engaging way of connecting math and music in a live, multimedia performance. Classic rock songs are paired with original lyrics and PowerPoint slideshows to present and explain concepts ranging from basic counting to algebra, to enhance and support classroom instruction.

**Anne Bercaw**

Lopatcong School District, NJ  
 bercawa@gmail.com

**Gary Hank**

Lopatcong School District, NJ  
 hankg@lopatcongschool.org

**27. PRACT TECH**  
**Show Us AND Tell Us: Screen Recording for Mathematical Thinking**

**6-12**

How can students show their work AND explain their mathematical reasoning? Empower your students through screen recording! In this workshop you will explore student examples, record your own screencast, create a student-centered activity and walk away ready to engage students in screencasting on Monday! Please bring a device!

**Kim Lowden**

West Windsor-Plainsboro Regional School District, NJ  
 kimberly.lowden@wwprsd.org  
 @lowdenhere

**Samantha Silva**

West Windsor-Plainsboro Regional School District, NJ  
 samantha.silva@ww-p.org

**28. ASSESS**  
**Promoting Opportunities for Access to Learning Through Active Learning Environments**

**9-12**

The speaker will discuss her experience teaching high school mathematics in an active learning environment, and the implications of creating opportunities for access to tasks and content in resource room, college prep, and advanced placement settings. Attendees will take away resources for tasks and examples of class structure.

**Kara Teehan**

Middletown High School North, NJ  
 teehank@middletownk12.org

**12:00 P.M. – 3:00 P.M.**

**29. PRACT**  
**Statistics : HEAVY on WORDS and PICTURES, LIGHT on Computation**

**6 - 12**

It's light on computation and counting theory. It's ideal as an hour+ talk/intro, for someone with an 8TH GRADE math background, as a review of a full stat course, and may be used to introduce topics, or review before tests, or to spice up a regular class session. BYOD.

**Agnes Azzolino**

mathnstuff.com, NJ  
 asquared@mathnstuff.com

**12:30 P.M. – 2:00 P.M.**

**30. PRACT**  
**Passing the Dinner Table Test by Engaging and Empowering Middle School Mathematicians**

**6-8**

By turning your classroom into a mathematics problem solving center you can engage and empower your students. They will become mathematical explorers. In this session we will share concrete ways to transform your middle school classroom and concrete examples of problems that can be used to do this.

**Jim Matthews**

Siena College, NY  
 matthews@siena.edu

**31. KNOW****Engaging and Exploring With Fibonacci and Fibonacci-Like Sequences**

6-12

The Fibonacci sequence and its affiliate sequences furnish a treasure trove of activities and explorations comporting to the conference theme. This hands-on workshop explores divisibility and periodicity patterns as well as palatable number tricks associated with these sequences. Explore, engage, discover and become empowered!

**Jay Schiffman**

Rowan University, NJ  
schiffman@rowan.edu

**32. PRACT TECH****Engage Students in Developing a Growth Mindset with NJCTL Materials**

6-12

Get students involved in their math education! Empower them with the confidence of self-directed learning using NJCTL teaching materials. From pre-made formative assessments to hands-on labs with virtual simulations, our resources will develop a growth mindset in students and have them exploring mathematics in a whole new way!

**Maria Surace**

NJ Center for Teaching & Learning  
maria@njctl.org  
@NJCTL

**Audra Crist**

NJ Center for Teaching & Learning  
audra@njctl.org

**33. PRACT TECH****Hands-On Activities + Technology = Mathematical Understanding Through Authentic Modeling**

9-12

Inquiry-based learning coupled with graphing technology empowers students to apply linear, quadratic, and exponential functions to real-world situations. Participants will be provided with classroom-ready hands-on data collection tasks that promote reasoning, problem-solving, and engaging purposeful questions which connect and synthesize the Statistics, Functions, and Modeling strands of the NJSLA-M.

**Tom Beatini**

Union City Board of Education, NJ  
tmpeasant@mindspring.com  
@BeatiniTom

**34. ASSESS****SAT for Graduation, College Readiness and Street Cred**

9-12

As the SAT will be accepted in 2020 as an exit exam, teaching the content helps students graduate and avoid remediation. Consider preparing for and taking the SAT yourself to know the test and gain some street cred with your students. The presenters will share their 2019 test experiences.

**Robin Schwartz**

College of Mount Saint Vincent, NY  
mathconfidence@aol.com  
@mathconfidence

**Natalie Perez**, Boonton Schools, NJ

natalie.perez@boontonschools.org  
@mathymomto5

**1:00 P.M. – 2:30 P.M.****35. PRACT TECH****Creating Digital Lesson with Desmos**

6-12

We will explore the Desmos guide to building digital lessons. Then we will apply those ideas to help us create digital lessons using teacher.desmos.com. We will explore all of the components available in building slides in Desmos, and create digital lessons that promote discourse in the math classroom.

**Nick Corley**

Northfield Middle School, NJ  
ncorley@ncs-nj.org  
@MrCorleyMath, @AlgebraDesmos

**1:30 P.M. – 2:30 P.M.****36. PROF****Mathematical Mindset, Equity, and Culture General Interest**

Developing a culture where students are intrinsically motivated and put a lot of effort into tasks and assignments will create a dynamic classroom! A growth mindset will allow learners to believe knowledge is growing, changing, and likely to be affected by context and perspective. Continuing to foster a mathematical mindset is important to the success of our mathematicians, classroom climate and rigor that goes into mathematical exploration. It is vital to address equity and access for ALL students to achieve math proficiency because all students regardless of race, ethnicity, linguistic, gender, or socioeconomic groups can attain the highest levels of mathematics achievement.

**Dominique Vetrano**

Hillsdale Public Schools, NJ  
dvetrano@hillsdaleschools.com  
@DominiqueP315

**Jackie Derwin**

Pascack Valley Regional, NJ  
jderwin@pascack.org, nhreno@woodcliff-lake.com

**37. PRACT**  
**Counting Counts**  
 PreK-2

Research has shown that the preschool mathematics competencies most predictive of fifth grade achievement are advanced counting competencies. What exactly are these competencies? Why are they important? How can we meaningfully promote them in our primary grade classrooms? In this session we will begin to explore the answers to these questions.

**Joe Schwartz**

Consultant/Coach, NJ  
 jschwartz1961@gmail.com  
 @Jschwartz10a

**38. PROF**  
**Developing Caring Relationships in Mathematics**  
 PK - 5

Teachers will generate common ways in which students are framed in society, schooling, and mathematics. Teachers will think about how those frames are enacted in mathematics classrooms through interactions. The session will end by discussing ways to monitor and reflect on interactions, developing specific strategies from exemplary elementary math teachers.

**Dan Battley**

Rutgers University, NJ  
 dan.battley@gse.rutgers.edu

**39. PRACT**  
**Maximized Math: A Workshop Model of Instruction**  
 3-8

A differentiated, four-part workshop model of instruction designed to meet the needs of all learners by utilizing stations to deliver content in a multitude of ways and individualized checklists that promote student choice and ownership.

**Courtney Hammell**

Bradley Beach School District, NJ  
 maximizingthemiddle@gmail.com

**Morgan Maclearie**

Bradley Beach School District, NJ  
 maximizingthemiddle@gmail.com

**40. PRACT TECH**  
**Developing Core Concepts in Calculus: The Role of Technology**  
 9-12

Experiences with interactive dynamic technology can be used to help students develop robust conceptual structures for key calculus concepts such as rate of change, concavity, derivative, accumulation, or average value. The session will also explore how these concepts play out in some typical AP exam questions.

**Gail Burrill**

Michigan State University, MI  
 burrill@msu.edu

**2:30 P.M. – 3:30 P.M.**

**41. PRACT**  
**What's So Important About Questioning?**  
 General Interest

In this spirited session participants will share ideas for improving questioning strategies at every instructional level.

**James Clayton**

Saint Peter's University, NJ  
 jclayton@saintpeters.edu

**42. PROF TECH**  
**SMART Learning Suite in the Mathematics Classroom**  
 3-12

The Smart Learning Suite brings your SMART Notebook files to your students' laptops in an interactive and powerful way. Join this presentation to learn how one Middle School Mathematics Teacher uses SMART Suite in his classroom every day.

**Tom Shown**

West Deptford Middle School, NJ  
 tshown@wdeptford.k12.nj.us

**Jil Spurduto**

West Deptford Middle School, NJ  
 jsperduto@wdeptford.k12.nj.us

**43. PRACT****Rational Function Investigation**

9-12

Rational functions can be a difficult topic for students when first introduced. Rational function graphs have characteristics that are new to the students, such as discontinuity. This activity is scaffolded for students to make connections to first identify similar characteristics amongst the graphs, then the relationship between the graphs and their respective equations. Introducing the topic in the format has provided students with a deeper understanding of rational functions and their graphs.

**Dawn Recentio**

Lawrence High School, NJ

drecentio@ltps.org

@DawnRecentio

**Anna Panova Cicchino**

Montgomery High School, NJ

drecentio@comcast.net

@harpgirl555

**2:30 P.M. – 4:00 P.M.****44. PRACT TECH****Using Desmos to Engage Students in the Mathematics Classroom**

6-12

Come learn about the free, online graphing calculator, Desmos. We will explore many of its features, from creating lessons and assessments through Activity Builder, finding and using pre-built activities from Desmos and other sources, working with the new Desmos Geometry platform, and even exploring math and art connections. Laptop is required.

**Diana Jensen**

West Windsor-Plainsboro Regional School District, NJ

diana.jensen@ww-p.org

**3:00 P.M. – 4:00 P.M.****45. PROF****Co-Teaching the Core in Mathematics****PreK-2, General Interest**

This session addresses math co-teaching types and their role in building a culture of data-driven instruction, personalized scholar goals, and scholar autonomy. Learn what one co-teaching pair did to close the achievement gap and boost scholar confidence while investing families and community stakeholders in the world of math achievement.

**Melissa Denbow**

District of Columbia Public Schools, DC

melissa.denbow@dc.gov

**Bridget Simmons**

District of Columbia Public Schools, DC

bridget.simmons@dc.gov

**46. PRACT****Developing Flexibility and Fluency**

PreK-5

Dr. Nicki Newton's research-based approach to basic fact fluency is a great way to assess your students' mathematical thinking and help them become proficient mathematicians. Math Running Records will help to pinpoint exactly where students are in their understanding of basic addition, subtraction, multiplication, and division facts. Using these assessments will help you understand the strategies your students are using and determine the next instructional moves to improve speed, accuracy, flexibility, and efficiency when solving basic facts.

**Jaclyn Derwin**

Pascack Valley Regional HS District, NJ

**Dominique Vetrano**

Hillsdale Public Schools, NJ

dvetrano@hillsdaleschools.com

**47. PRACT****Can't Get Enough of Sense-Making? Engagement Through Games**

3-5

Help your students deepen their sense-making and develop strategic mathematical reasoning through game-playing. We will be exploring low floor, high ceiling non-digital math games that only require common classroom materials. Participants will leave with a virtual folder of engaging games, organized by domain and grade level, for immediate use!

**Nan Evans**

Brick Township Public Schools, NJ

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@nan\_evans

**LeighAnn Layton**

Brick Township Public Schools, NJ

llyayton@brickschools.org

@leighann\_layton

**48. PRACT TECH****GeoGebra – More Than Geometry!**

6-8

Come to learn how you can use GeoGebra in middle school math. This free multi-platform software/APP will engage your students in dynamic explorations, problem solving, and doing math! Learn about new Augmented Reality feature and exam mode. Bring your own device to fully participate.

**Irina Lyublinskaya**

Teachers College, Columbia University, NY

irina.lyublinskaya@gmail.com

@ilyublin

**49. PRACT TECH****Enhancing Problem Solving Through the Flipped Classroom****6-12**

Want to dive deeper, enhance questioning, engage all learners, and equip students with problem solving skills so they leave us as first rate problem solvers, not second rate calculators? This session will discuss best practices in the flipped classroom model for people of all technological skill levels and will show how this allows for greater time and access to your students to develop those problem solving skills.

**Gerard Marrone**

Point Pleasant Borough High School, NJ  
gmarrone@pointpleasant.k12.nj.us

**50. PRACT****Using TedEd Riddles to Teach Problem Solving****6-12**

Participants will explore TedED logic and riddle puzzles in order to brainstorm ways to incorporate them into their curriculum to enhance student critical thinking and problem solving skills.

**Nicole Ealey**

Rutherford Schools  
Association of Math Teachers of New Jersey  
nealey@rutherfordschools.org

7:15 A.M. – 7:45 A.M.

**51. First Timers' Session**

**General Interest**

An orientation for the program booklet and the conference.

**Stephanie Cooperman**

Association of Math Teachers of New Jersey, President

8:00 A.M. – 9:00 A.M.

**52. PRACT**

**Big Ideas with Small Numbers**

**PreK-2**

Many kids enter Kindergarten able to count to 100, but don't have a conceptual foundation of number. We'll dig into the deep mathematical thinking that students need to do within 20 in Kindergarten. Through tasks and videos, we'll see how students develop counting concepts and how this connects to addition.

**Alexandra Clayton**

Illustrative Mathematics, NJ

aclayton@illustrativemathematics.org

**Marni Greenstein**

Illustrative Mathematics, NJ

mgreenstein@illustrativemathematics.org

@math\_marni

**53. PRACT TECH**

**Turn-and-Talk 2.0: Technology Tweaks to Improve "Math Talk"**

**PreK-12**

A turn-and-talk is one of the most effective and simple strategies for engaging students at all levels. This session will provide ideas on incorporating technology into turn-and-talks in order to push students' use of mathematical language. After the presentation and resource-sharing, you'll be involved in brainstorming, practicing and planning!

**Lauren Vargas**

EdConnective, PA

lauren.vargas@gmail.com

**Mariame Yaqob**

EdConnective, PA

yaqobmar@gmail.com

**54. ASSESS**

**Assessing and Developing Students' Problem-Solving Strategies and Habits of Mind**

**3-5**

What does it mean to assess problem-solving? What exactly are we assessing? In this session we will explore a set of routines in order to define a set of namable and learnable problem-solving strategies and habits of mind. We will share assessment tools and explore the role of feedback and formative assessment to improve children's problem-solving.

**Michael Cassaro**

Metamorphosis Teaching Learning Communities, NY

mpcassaro@gmail.com

**Ellen McCrum**

Metamorphosis Teaching Learning Communities, NY

ellenmccrum@gmail.com

**55. PRACT**

**Putting Students in the Driver's Seat with Blended Learning**

**3-12**

Ready to change up your instruction and engage all learners? In this session we will discuss blended learning methods: the Flipped Classroom, Station Rotation Model, and Whole Class Rotation Model. Participants will learn strategies to incorporate technology with each model and give students an active learning role.

**Kristy Brashi**, Livingston High School, NJ

kbraschi@livingston.org

@happilyeffectiv

**56. PRACT**

**STEM-ulating Activities for People and the Planet**

**6-8**

Connect students' growing math and critical thinking skills to the trends shaping the world around them, from changing global demographics to carbon emissions to resource management. Engage in simulations, mathematical modeling, measurement and data analysis using current events and real-world data.

**Judy Levine**

Somerville Public School District, NJ

timshel20028@yahoo.com



**57. PROF**  
**Reflective Meditations in the Mathematics Classroom**

**6-12, General Interest**

Teaching and learning depends on the ability of the mind to focus. However, students often come to class with math anxiety, faltering grit, and frustration among many other factors. In response to the ever-changing dynamics of the teenage mind, I have developed mindfulness exercises and reflective meditations that can be easily incorporated into any classroom. The exercises train students to sit with emotions while problem solving and enhance their understanding of mathematics as a process rather than a result-oriented pursuit. Come learn about and experience these exercises!

**Payal Patel**  
 Association of Mathematics Teachers of New York State

**58. PRACT**  
**Solving Problems with Calculus, Not Calculus Problems**

**9-12**

Spin casting parabolic mirrors, how far out must a pilot start descent, hanging chains, bridge arches, pursuit curves, growth models, understanding rainbows. This talk will provide such problems and more with solutions and discuss how to restructure a calculus course to make such problems the focal point.

**Robert Rogers**  
 SUNY Fredonia, NY  
 robert.rogers@fredonia.edu

**59. KNOW**  
**An Introduction to Logarithms**

**9-12**

Certainly one of the concepts from Algebra II and Precalculus with which students experience difficulty is logarithms. This presentation proposes some possible reasons for this difficulty, explores the underlying mathematics, and suggests a method for introducing the topic.

**James Carpenter**  
 Iona College, NY  
 jcarpenter@iona.edu

**8:00 A.M. – 9:30 A.M.**

**60. PROF**  
**Let's Do the Math: Creating Effective Systems to Build Content Knowledge**

**General Interest**

Nothing is as powerful in strengthening instructional practice as developing a common practice of teachers doing math together. Join this interactive workshop to experience detailed protocols for unpacking modules, analyzing tasks, and planning responses to student work. Leave with concrete next steps for building a culture of "doing math" in your professional learning setting.

**Ashley Baldwin**  
 Mastery Charter School, PA  
 ashley.baldwin@masterycharter.org

**61. KNOW**  
**Constructive Geometry - an Award-Winning Capstone Number Line Project**

**6-12**

Participants will engage in a hands-on project (awarded a 2013 Rosenthal Prize) which uses a year of concepts and problem-solving to construct a number line which plots any integer, any rational number, and any square root irrational number. We will also discuss the process of integrating this within limited constraints.

**Brent Ferguson**  
 The Lawrenceville School, NJ  
 bferguson@lawrenceville.org

**9:30 A.M. – 10:30 A.M.**

**62. PRACT**  
**The Shape of Things: Exploring Geometry Through Modern Art Masterpieces**

**PK - 2**

Sometimes a piece of art can be intimidating to adults. However, when viewed through the eyes of a child, all inhibitions disappear. This workshop will demonstrate how to guide discussions and inspire children to make mathematical connections when looking at art. Then, you will get to make your own creations!

**Laurie Bayless**  
 Greenwich Country Day School, CT  
 lbayless@gcds.net

**63. PROF**  
**Math Inquiry Lab: A Vehicle for Professional Development and Differentiation**

**PreK-6**

Learn how to create a Math Inquiry Lab for PreK-6 students. Provide students with an opportunity to participate in differentiated, hands-on tasks that are engaging and challenging, while providing classroom teachers with professional development. Empower students to build their own mathematical connections, feel successful, and enjoy the process.

**Jennifer Olsen**

Farmingdale Public Schools, NJ  
 jolsen@farmingdaleschools.org  
 @JenniferJOlsen

**Dina Carlucci**

Farmingdale Public Schools, NJ  
 dcarlucci@farmingdaleschools.org

**Janice Puglisi**

Farmingdale Public Schools, NJ  
 jpuglisi@farmingdaleschools.org

**64. PRACT**  
**Measurement is More Than Being Able to Read a Ruler!**

**3-5**

In PISA studies, US students are less proficient with measurement than their global counterparts. Why is this? Might it be that measurement is taught as a set of isolated skills, rather than as an interconnected web of complex ideas? In our session we will explore tasks and routines to help students develop a deep understanding of measurement.

**Renee McShane**

Metamorphosis Teaching Learning Communities, NY  
 renee@metamorphosistlc.com  
 @MetamorphTLC

**Antonia Cameron**

Metamorphosis Teaching Learning Communities, NY  
 antonia@metamorphosistlc.com

**65. PROF**  
**Coaching Teachers to Create Positive Self-Fulfilling Prophecies**

**General Interest, 3-8**

Sometimes lessons feel scripted, with teachers not responding to what students are saying. Explore strategies to create lesson images and lesson plans that allow for flexible enactment based on what is learned from students, so our “self-fulfilling prophecy” turns into a positive learning experience.

**Edward Nolan**

Towson University, MD  
 enolan@DNAmath.com  
 @ed\_nolan

**66. PROF**  
**Oh yes you can! Motivate and Engage All Your Students!**

**3-12, General Interest**

Discover proactive, research based, and user-friendly strategies! Learn techniques to meet students where they are and then take them where they need to go! Make the connections between differentiated instruction and student engagement; explore how to capture their attention, promote deeper learning and take student learning to a new level.

**Denise McKeown**

Educators Inspire, PA  
 denise.mckeown3@gmail.com

**Felicia Mizgorski**

Retired Pittsburgh Public School Teacher, PA  
 raysfish@comcast.net

**67. PRACT**  
**Something to Talk About: Cultivating Divergent Thinking and Mathematical Discourse**

**6-8**

The tasks teachers provide are the foundation for mathematics instruction that supports robust classroom discourse, fosters divergent thinking, and cultivates intellectual curiosity. In this session, participants compare and contrast two tasks in order to develop characteristics of tasks worth talking about.

**Brenda Konicke**

Math Solutions, AZ  
 bkonicke@mathsolutions.com  
 @brendakonicke

**Hollie Hartford**

Math Solutions, AZ  
 hhartford@mathsolutions.com

**68. ASSESS**  
**Using Student Self-Assessment to Increase Mastery for All Learners**

**6-12**

This session will demonstrate how to incorporate self-assessment strategies throughout a sample unit in order to engage students in tracking their progress. These strategies help students track mastery of standards and objectives, with opportunities for both formative and summative assessment at the lesson and unit levels.

**Lizzy Skousen**

Illustrative Mathematics, TX

**69. KNOW TECH**

**Trigonometric Ratios and Identities: A Geometric Approach**

9-12

With the help of GeoGebra, an online graphing tool, we will use a unit circle to present a geometric representation for each of the six trigonometric ratios. We will finish with a surprising result: a visual proof for three trigonometric identities.

**Angelo Villanueva**

Rutgers University, NJ  
afv21@scarletmail.rutgers.edu

**Kyle O'Brien**

Rutgers University, NJ  
klo52@scarletmail.rutgers.edu

**70. Featured Presentation PROF**

**Why Teach Mathematics? How Do We Convince Students Mathematics is Important?**

9-12



Much of the focus on what students should know in mathematics has been on college and career readiness. NCTM's Catalyzing Change suggests there is more to mathematics. What does this mean for us as teachers? Is knowing what factors are, and how they connect to the roots of a function more important than being able to factor? Let's revisit what we do and why.

Gail Burrill currently works as an Academic Specialist in the Program for Mathematics Education at Michigan State University. Gail Burrill was a secondary teacher and department chair in suburban Milwaukee, Wisconsin for over 28 years. She received the Presidential Award for Excellence in Teaching Mathematics, the NCTM Life-Time Achievement Award, the Ross Taylor/Glenn Gilbert NCSM service award, is an elected member of the International Statistics Institute, and served as President of the National Council of Teachers of Mathematics and as Director of the Mathematical Sciences Education Board. Burrill co-chaired the College Board Commission on the Calculus Framework and is currently chair of the College Board's Advanced Placement Calculus Development Committee.

**Gail Burrill**

Michigan State University, MI  
burrill@msu.edu

**10:30 A.M. – 12:00 P.M.**

**71. PROF**

**Revitalizing Early Childhood Routines to Develop Deep Reasoning**

PreK-2

Mathematical reasoning begins in early childhood. Often, teachers do not realize the capacity children have to reason and communicate. Resulting low expectations severely impact students' confidence and willingness to engage in math. Our session will explore powerful reasoning routines that can be used to support and challenge all learners.

**Antonia Cameron**

Metamorphosis Teaching Learning Communities, NY  
tonicam52@gmail.com

**Deanna Catanzaro**

Metamorphosis Teaching Learning Communities, NY  
dcat631@gmail.com

**11:00 A.M. – 12:00 P.M.**

**72. PRACT**

**The Power of Mathematical Models: How to Build Multiplicative Reasoning in Diverse Populations**

3-5

Multiplicative reasoning is the doorway to higher-level mathematics. For some students, this door is barred because they were asked to reason abstractly before they fully grasped these ideas in concrete ways. To provide access for these students, we advocate for using a concrete, dynamic mathematical model called the bead string.

**Michael Cassaro**

Metamorphosis Teaching Learning Communities, NY  
mpcassaro@gmail.com

**Ellen McCrum**

Metamorphosis Teaching Learning Communities, NY  
ellenmccrum@gmail.com

**73. PROF**

**Do the Math - Professional Learning Across Grade Levels**

3-6

Build content knowledge across mathematical strands by doing the math at different grade levels to understand what your students already know, and what they will encounter next. Focus will include the fraction progression across grades 3 through 6.

**Kristin DeLorenzo**

Flemington Raritan School District, NJ  
kdeloren@frsd.k12.nj.us

**74. PRACT**

**Don't Do Now**

6-8

The first five minutes of your class is critical. According to Mary Poppins, "Well begun is half done!" Stop wasting your time with Warm-ups and Do Nows. Come and learn about the power of the Number Sense Routine. We will discuss the purpose and vision of the Routine. We will provide and work through many examples.

**Andrea Bean**

West Windsor Plainsboro Regional School District, NJ  
andrea.bean@ww-p.org

**Linda Scanlan**

West Windsor-Plainsboro Regional School District, NJ  
linda.scanlan@ww-p.org

**75. KNOW**

**Reasoning with Rate of Change: Comparing Quadratics and Exponentials**

6-12

Join us for an exploration of functions from a rate of change perspective. Come engage in a series of hands-on and dynamic activities to explore the idea of rate of change to compare linear, quadratic, and exponential behavior. At the same time, you will focus on developing important conceptual understandings of functional relationships.

**Madhavi Vishnubhotla**

Montclair State University, NJ  
vishnubhotm1@montclair.edu

**Mustafa Mohamed**

Montclair State University, NJ  
mohamedm3@montclair.edu

**76. KNOW**

**Pythagorean Play, Perception, Puzzles and Proofs**

6-12

Paper folding, dot paper, and dot paper and algebra are used to learn or reinforce basic geometric concepts centered around the Pythagorean Theorem.

**Mark Schlawin**

Association of Math Teachers of New Jersey  
mark.schlawn@gmail.com

**77. PRACT**

**Definitions in the Mathematics Classroom**

9-12

How do you teach definitions? This presentation will take a careful look at definitions and how to teach them in a robust manner that invites possibilities, mathematical surprises, and conceptual understanding. Examples will be drawn from secondary mathematics curricula and current research in mathematics education.

**John Kerrigan**

Rutgers University, NJ  
Middletown Twp Public Schools, NJ  
kerriganj@middletownk12.org  
@kerrigan\_john

**Ryan Aker**

University of Rhode Island, RI  
ryan\_aker@my.uri.edu

**11:00 A.M. – 12:30 P.M.**

**78. KNOW**

**Eight Math Lies That are Told to Students**

**General Interest**

There are eight falsehoods that seem to hold true given the content the student is learning at the time but expire later on with more in-depth mathematical knowledge. These falsehoods further the idea that mathematics is a series of rules to memorize rather than the big concepts that are related.

**Rachel McAnallen**

Ms. Math and Company, CT  
rmathmania@aol.com

**Carol Ann Williams**

Royal Fireworks Press, CT  
caw51@comcast51.net

**79. KNOW**

**You Can Do the Rubik's Cube**

**PreK-5**

Our mission is to provide resources and support to schools and youth organizations to teach STEM/STEAM standards and 21st century skills by using the Rubik's Cube. The Rubik's Cube fosters math, art, critical thinking, coding, algorithms, and social skills.

**Deborah Gullo-Lamoot**

You Can Do the Rubik's Cube, NJ  
deb.gullo@gmail.com

**80. PRACT****Passing the Dinner Table Test by Engaging and Empowering High School Mathematicians**

9-12

By turning your classroom into a mathematics problem solving center you can engage and empower your students. They will become mathematical explorers. In this session we will share concrete ways to transform your high school classroom and concrete examples of problems that can be used to do this.

**Jim Matthews**

Siena College, NY  
matthews@siena.edu

**12:30 P.M. – 1:30 P.M.****81. PROF****Classroom Ecology: Diversify Beyond a Traditional Seating Chart**

General Interest

Learn how to change a traditional classroom configuration into membership loops, dyads, arrows, runways, horseshoes, and centers to increase student engagement. Explore the pros and cons of multiple classroom arrangements.

**Felicia Mizgorski**

Pittsburgh Public School, PA  
raysfish@comcast.net

**Roxanne Tsambarlis**

Belle Vernon Area School District, PA  
rck745@comcast.net

**82. PRACT****Adventures in Number Sense**

3-5

Flexible methods of expressing numbers and calculating sums, products, differences and quotients is key to numerical fluency, and understanding mathematical concepts. We will explore ways of flexibly manipulating numbers in this hands-on workshop.

**Thomas Walsh**

Kean University, NJ  
tpwalsh@kean.edu

**83. PRACT TECH****The Desmos Card Sort**

9-12

The Desmos teacher dashboard has a Card Sort Lab available to teachers to customize a matching activity for any topic. From factoring to functions, a Card Sort can quickly assess student understanding, help make connections and create lively classroom discourse. Come make your first Card Sort using the Desmos Activity Builder!

**Kathleen Carter**

North Hunterdon High School, NJ  
kcarter@nhvweb.net

**84. ASSESS****Engaging with Students Through Reassessment**

9-12

There are many stigmas associated with reassessment and remediation. We will discuss the impact of remediation had for us and our students paired with our standards-based-grading system. Participants will leave with strategies to use to help engage with students and make remediation a powerful classroom tool.

**Caitlin Murphy**

Pascack Valley High School, NJ  
cmurphy@pascack.org  
@ms\_murphyPVHS

**12:30 P.M. – 2:00 P.M.****85. KNOW TECH****Computer Science for ALL Students - Your Calculator Can CODE!**

3-12

Did you know your calculator can code? If kids can read, they can code! Did you know that TI Basic is allowed on the AP Computer Science Principles Course? This hands on session will show you how easy it is to incorporate coding in any class. NO CODING EXPERIENCE NEEDED.

**Robyn Poulsen**

Texas Instruments, NY  
rpoulsen@ti.com  
@RobynPoulsen

**86. PRACT TECH****Getting Feedback in the Math Classroom**

6-12

In this hands-on workshop participants will get exposure to a variety of tools to collect formative feedback on students. We will explore ways to use a variety of technological tools to monitor students' understanding in class and through blended learning. Participants will use cellphones and laptops to act as students in a variety of websites and apps in order to understand the feedback loop to the instructor. Websites like classkick and nearpod will be used to demonstrate interactive teaching. Websites like kami and G-Suite will be used for collaboration. Apps like loom and flipgrid will be used to showcase student work and reflections.

**Daniel Twister**

Watchung Hills Regional Highschool, NJ



12:30 P.M. – 3:00 P.M.

87. **PRACT**

**Let's Talk About Talking: Scaffolds to Strengthen Student Sharing**

PreK-2

Come learn specific strategies and steps that explicitly teach meaningful talk, build throughout the year, and help K-2 students move beyond saying "my brain told me". We will examine data, student work, and videos. You will have the opportunity to experience tools and techniques from both learners' and teachers' perspectives.

**Cheryl Fricchione**

Coaching that Counts, NJ  
coachcheryl@mathcoachingthatcounts.com  
@MathCoachCheryl

1:00 P.M. – 2:00 P.M.

88. **PROF**

**Bridging the MS Math Equity Gap Through Collaboration**

6-8

In this session, teachers will learn strategies that can be implemented for any learning target to engage all students, including English language learners and students with IEPs, in collaboration while building understanding of the mathematics. The goal of this workshop is to model how mathematics can come alive for all students when they are engaged fully in the learning process. Teachers will participate in activities that can be used in their classroom, no matter what curriculum they are using, to help students think and talk about the mathematics they are learning. Strategies will be modeled that help students develop a sense of curiosity and wonder about the math they are learning.

Shannon McCaw has been a classroom teacher and district math specialist in multiple school districts. Over the past ten years, Shannon has worked as a math consultant with K-12 math teachers in hundreds of districts around the country. Prior to writing the EdGems Core Math series, Shannon authored a middle school math series used throughout the United States. Shannon's areas of expertise include the Common Core State Standards, curriculum alignment, assessment best practices and instructional strategies with a focus on engaging students. She has a degree in Mathematics from George Fox University and a Masters of Arts in Secondary Math Education from Colorado College.

**Shannon McCaw**

EdGems Core Math, NJ  
shannon@edgems.com

89. **PRACT**

**Algebra in the Middle Grades**

6-8

Students learning algebra in middle school means teaching algebra in an investigative/inductive way. Developing rules is better than being told what they are. This session will address an approach to algebra from concrete to symbolic for the topics of linear functions and equations that form the bases for middle school algebra.

**Frank Gardella**

Hunter College, NJ  
fgardell@hunter.cuny.edu

2:00 P.M. – 2:30 P.M.

90. **PROF**

**Active Learning Classrooms: Scaling the University Model**

9-12

This session will discuss the evolution of secondary active learning spaces, scaled from the model used at the state university. Implications for teaching and learning mathematics in these technologically enhanced learning environments will be described.

**John Kerrigan**

Rutgers University, NJ  
Middletown Twp Public Schools, NJ  
kerriganj@middletownk12.org  
@kerrigan\_john

2:00 P.M. – 3:00 P.M.

91. **PRACT**

**Diffuse the Disruptions and Keep on Teaching**  
**General Interest**

Learn proactive strategies that diffuse even the most persistent interruptions. Four of the most versatile Diffusers are provided and participants have an opportunity to try them out. The breakout shows techniques to remain calm, respond respectfully and maintain control.

**Felicia Mizgorski**

Retired Pittsburgh Public Schools Educator, PA  
raysfish@comcast.net

**Denise McKeown**

Educational Consultant, PA  
Denise.Mckeown3@gmail.com



2:00 P.M. – 3:30 P.M.

**92. KNOW**  
**Building Number Sense Through Pattern Connections: The Amazing World of Figurative Numbers**

3-8

Just as triangles are the building blocks for all polygons, the set of numbers known as triangular numbers are the building blocks for the standard polygonal numbers (including the perfect squares). This session will allow participants to connect algebra and geometry through investigating polygonal figurate numbers. These investigations will aid students in making connections, creating formulae from models and output data (functions) in an interactive investigation.

**Hugh Green**

West Windsor-Plainsboro Regional School District, NJ  
 hugh.green@ww-p.org

**93. PRACT TECH**  
**Enhancing Math Instruction Using Technology**

6-12

A model example of how technology can enhance math instruction will be experienced during this session. Various tools will be demonstrated through a hands-on experience. Having a personal Google account is highly encouraged to fully partake in this activity.

**Daniel Gallagher**

West Windsor-Plainsboro School District, NJ  
 daniel.gallagher@wwprsd.org  
 @Gallagher\_Tech

**Linda Scanlan**

West Windsor-Plainsboro School District, NJ  
 linda.scanlan@wwprsd.org  
 @TrsWwp

2:30 P.M. – 3:30 P.M.

**94. PROF**  
**Self-Paced Math Class - Reaching All Learners**

3-8

Imagine a math class where all students work at a pace that helps them reach their individual mathematical potential! It's possible using the materials and technology you already have. We will share our experiences, struggles, and successes of our first year of implementing a self-paced math classroom.

**Daniel Shirvanian**

Flemington Raritan School District, NJ  
 dshirvan@frsd.k12.nj.us

**Kristin DeLorenzo**

Flemington-Raritan School District, NJ  
 kdeloren@frsd.k12.nj.us

**95. PRACT**  
**Choice in the Mathematics Classroom**

3-8

Research has shown that one way to increase student engagement is by offering choice. Learn how to create and manage choice activities in your math class. We will discuss different formats for providing choice, and provide options for activities for all students.

**Carri Strunk**

Flemington Raritan School District, NJ  
 cstrunk@frsd.k12.nj.us

**Liz Gardner**

Flemington-Raritan School District, NJ  
 egardner@frsd.k12.nj.us  
 @lzgard

**96. KNOW TECH**  
**Solve Interesting Problems with Recursion**

9-12

Use recursion to solve problems like Two Lions, Tower of Hanoi, and Strands of Spaghetti. This is a collaborative, problem solving session; you will be engaged in problem solving. Please bring a calculator.

**Ray Siegrist**

SUNY Oneonta, NY  
 drsiegrist06@gmail.com

**97. PROF**  
**When Teaching Causes a Conflict in Your Soul – Find an Outlet! Create a New Course for HS Students.**

9-12

This session is about how I created a new math elective that will give students the experiences that I have been wanting to give them for years. I followed my heart and began building a "Research in Mathematics" course that included exposure to a variety of awe-inspiring math concepts that do not show up in the K-12 curriculum. Rich with the Standards for Mathematical Practice, but content that reaches outside the content standards, this course gives students the opportunity to think, work and feel like mathematicians. But there is more... students will work with mathematicians around the country! During the session we will look and discuss some activities I use in my course. Yes, we will do math!

**Anne Paoletti Bayna**

Clearview Regional High School

3:30 P.M. – 4:00 P.M.

**98. Closeout Session**

**Snacks! Prizes! Sharing!**  
**Thank you for attending the conference!**  
**Have a great School Year!**