

AMTNJ News

Association of Mathematics Teachers of New Jersey

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Message from AMTNJ



Ms. Jelena Komitas
AMTNJ's
106th President

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AMTNJ recognizes the extraordinary nature of our current circumstances and the exceptional character of our fellow educators. We are amazed at the stories of math teachers working above and beyond the call of duty to sustain their students both academically and emotionally. We are proud to represent such conscientious and dedicated professionals. It is your individual and collective commitment to student success and well-being that will ensure that our students develop not only the quantitative and logical reasoning skills that our discipline requires, but also the personal attributes that our students will need to flourish in the future. We are looking into ways to support you during this crisis and to enable you to face the new reality on the other side of these times. Stay well!!

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AMTNJ wants its newsletter to be fair and correct in every way. If you have a question or comment about information in this newsletter contact us through amtnj@juno.com.

Two-Day Conference Recap

By Jelena Komitas

The 29th AMTNJ Two-Day Annual Conference was held on October 25 and 26, 2019 at the Crowne Plaza Princeton Conference Center, Plainsboro, NJ. The title of the conference was Engage, Explore, Empower! Over 300 math educators contributed in a variety of ways to help this event run smoothly: offering interesting presentations, sharing ideas, participating in discussions, sharing new products and volunteering. The energy, passion for mathematics and dedication to teaching have created a great atmosphere for discussion and networking during the conference.



Our keynote speaker was Jim Matthews from Siena College, NY. His keynote speech gave us suggestions on how to help our students pass the “Dinner Table” test. What will your students say, when asked: “What did you learn in your math class today?” Jim challenged the

audience with the following questions: After 12 years of studying the subject, can your students state any open ended mathematics question?, Think-Think-Think is better than Train-Train-Train, but what about Think-Train-Think? What is your favorite Pythagorean Theorem problem? Do we even have one? Jim certainly does. If you missed his presentation visit our website to access the slides.

Our featured speakers were Robert Gerver from the Institute for Creative Problem Solving, NY and Gail Burrill from Michigan State University. Robert discussed two alternatives to Algebra 2 and Precalculus - Advanced Algebra with Financial Applications and HandsOn Statistics. These courses would allow students who might not succeed in Algebra 2 and Precalculus to gain skills, confidence, and four years of math credits. Gail emphasized the importance of teaching students conceptual understanding of mathematical concepts, their underlying connections, and how technology can help us teach what is truly important. To emphasize the role of technology, Gail cited Gottfried Wilhelm Leibniz: “It is unworthy of excellent men to lose hours like slaves in the labour of calculation which could safely be relegated to anyone else if machines were used” (Describing, in 1685, the value to astronomers of the hand-cranked calculating machine he had invented in 1673).

The conference program offered a variety of presentations from Pre-K to High School and beyond. Some presentations focused on pedagogy and instructional practices, some on

assessments, and others, on expanding mathematical knowledge beyond the state standards. Many presentations incorporated technology integration to enhance students' learning.

During our dinner banquet we celebrated the success of the recipient of the Max Sobel Award - Jay Schiffman, from Rowan University - and the recipients of the Presidential Awards for Excellence in Mathematics and Science Teaching: Jennifer Fitzgerald from Memorial Middle School (Point Pleasant) and Sarah Miller from North Brunswick Township High School. It was such an honor to spend time with the teachers, who not only

have deep content knowledge of mathematics, but also the ability and desire to empower mathematics learners.

The AMTNJ Conference Committee would like to thank all volunteers, attendees, and our sponsors for their generosity and interest in the conference. We wish you all the best and hope that you continue to be engaged with our upcoming conferences and events. For our upcoming events visit <http://amtnj.org/> and follow us @amtnj.

For the Annual Two-Day Conference Materials visit <http://amtnj.org/annual-two-day-conference-materials/> We hope to see you at the AMTNJ Two-Day 2020!

Special Education Conference Recap

By Stephanie Cooperman

On Wednesday, December 4, 2019, the Association of Mathematics Teachers of New Jersey sponsored the 11th Annual Special Education and Mathematics Conference. The event was held at the Forsgate Country Club, Monroe Township, New Jersey. The theme for the conference was Equity and the Teaching of Mathematics. There were twenty-two speakers, ninety-six participants and five volunteers from AMTNJ who assisted with registration and inquiries.



Presentations highlighted multi-dimensional approaches to increase student engagement and the understanding of mathematical concepts and skills. Learning had to be a positive experience for all students; differentiated instruction that was correlated to students' interests and strengths, was most important. By using multiple intelligence approaches for learning, students could enhance their thinking skills that could be applied to individual interests and proficiencies. Teachers needed to design lessons that incorporated a wide variety of strategies. Encouraging students to interact with each other, would help them to develop their problem-solv-

ing skills during math lessons and to their lives outside the classroom.

Other presentations included:

- Strategies that would help teachers to address the needs of students with language difficulties.
- Using games and puzzles within lessons for students to experience success and self-confidence alongside their peers.
- The use of ten frames to develop a foundation for cardinality (part-whole understanding) and arithmetic operations.
- Using the Bracket Method to teach simplifying expressions and solving equations without using the rules of PEMDAS.
- How to use a Concrete-Pictorial-Abstract (CPA) instructional approach to develop understanding and fluency with multiplication and division concepts.
- The use of inexpensive manipulatives such as color tiles, colored rods and fraction tiles to engage students while they were discovering essential concepts.
- Incorporating technology such as the Geometer Sketchpad and SMART Notebook software in lessons to help students to better understand math concepts through visual learning.

Julie Norflus-Good, Associate Professor of Teacher Education and the Director of the Master of Arts in Special Education at Ramapo College of New Jersey, was the Keynote speaker for this year's conference. Her

presentation, entitled Meeting the Needs of All, noted how educators were challenged to meet the needs of all students in their classrooms. Dr. Norflus-Good said how important it was for teachers to understand the dif-

ference between equality and equity and emphasized using differentiated instruction. She discussed strategies that could immediately be implemented in the classroom.

Peer Tutoring in the Math Classroom

By Nicole Ealey

The bell has rung, another school day ended, but your day is not finished--there is the extra help period. As a math educator, you may often find yourself teaching an extra period at the end of the day, when all of your colleagues have gone home. Extra help time is a critical time during after school hours where students who need additional support can seek teacher assistance. Extra help benefits students at all skill and ability levels in the math classroom. However, I often feel swamped by the amount of students needing one-on-one attention in our 30 minute after school period. A few years ago, I was taken by surprise when one of my students wanted to stay, not for extra help, but rather to help one of their peers. Then it hit me: "Peer Tutoring" could be the answer to feeling overwhelmed. Four years ago, I started a Peer Tutoring program, in which my students in the advanced math class volunteer their time after school Tuesday through Thursday to tutor their peers. Students in the advanced class were matched 1:1 with students and it was perfect--students were able to learn from one another, help each other build confidence, and enhance their math skills. The tutors benefited from explaining the concepts, and the students being tutored were eager to learn and practice their skills. This program was so successful that I invited more students to tutor and brought them to my colleagues' classes after school. So now, students were tutoring both 7th and 8th graders in all levels of mathematics. Students that tutor are rewarded with extra credit points, although many of them benefit from the pure joy in helping others! Would you want to start a peer tutoring program?

Benefits of Peer Tutoring

For the Tutor

- *Increased confidence in explaining mathematics
- *Enhancing communication and collaboration skills
- *Intrinsic Motivation in helping others succeed
- *Building of leadership qualities and values
- *Build rapport with peers

For the Tutored Student

- *Increased confidence in understanding mathematics
- *Enhancing communication and collaboration skills
- *Able to seek help and become a self advocate
- *Build rapport with peers

For the Teacher

- *Ability to help each student meet their needs
- *Foster a more collaborative approach to extra help
- *Involve learners of all ability levels to collaborate
- *Foster opportunities for leadership skills in students

How to begin the program

*Survey students that may be interested in tutoring--you can hold an after school meeting or create an online survey tool, such as Google Forms

*Meet with potential tutors and explain the process of peer tutoring with them. Explain the time commitments and what is expected, so that everyone is on the same page

*Create a calendar, see mine below and share with your colleagues and the tutors.

*You can have this program just for your class, or your entire math department!

About the Author

Nicole Ealey is a K-12 certified tenured mathematics teacher with more than 14 years of teaching experience. She earned her M.Ed. in Teaching Children Mathematics and B.S. in Mathematics from William Paterson University. Nicole has taught diverse groups of students, successfully infusing technology into the math classroom and has been awarded grants for her work with incorporating games into the mathematics classroom. Nicole created and teaches a STEM elective, Architecture, in which her students utilize technology and problem-based learning. In her time away from school, Nicole enjoys beach time and hiking with her husband Sean, and her dog Finn, an Irish Doodle.

AMTNJ ANNUAL 2-DAY CONFERENCE

Thursday-Friday, December 3-4, 2020
Crowne Plaza Princeton - Conference Center



Keynote Speaker

Dr. Trena Wilkerson, President-Elect of NCTM

Trena Wilkerson, the current NCTM President-Elect, is a mathematics education professor at Baylor University in Waco, Texas, where she teaches both graduate and undergraduate mathematics education courses and conducts professional development and research. Trena taught high school mathematics for 18 years, and she loves teaching and learning mathematics in support of current and future mathematics teachers and leaders!



Featured Speaker

Dr. Deidre Richardson, State Mathematics Coordinator
at New Jersey Department of Education

Dr. Richardson will be speaking on Thursday and Friday on "Promising Practices in Early Mathematics I" and "Promising Practices in Early Mathematics II"

What's New this Year?

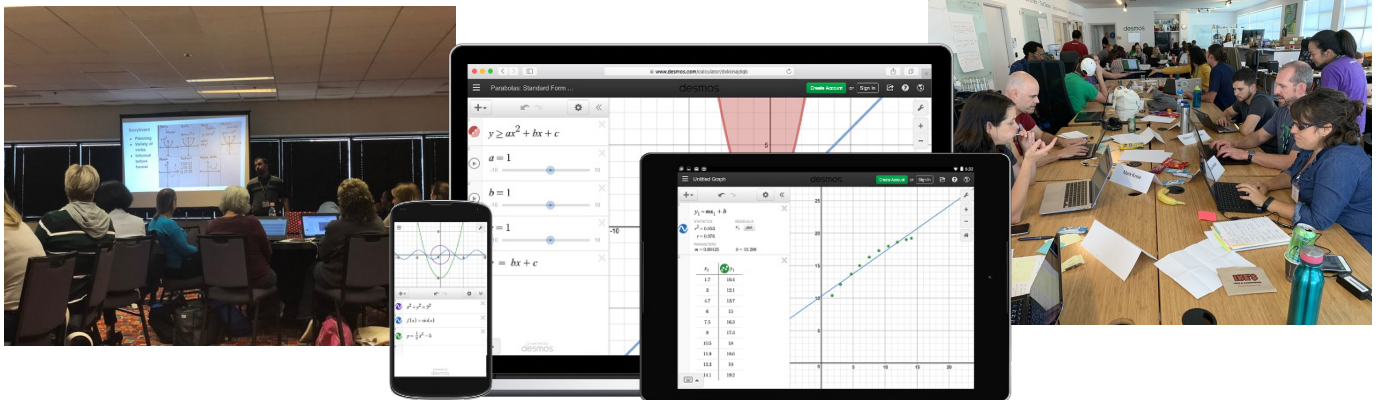
- Supervisors' Strand
- New Engaging Session Types
- Trivia and other Social Events

Register at <https://tinyurl.com/AMTNJ2020>


The registration includes access to all workshops/sessions, exhibitors, lunch, coffee/tea throughout the day, PD certificate.

desmos

Hosted by the Association of Math Teachers of New Jersey



- See how Desmos technology can energize student learning, enable exploration, and remove barriers to understanding.
- Participants will learn principles for designing and facilitating a Desmos activity that increase engagement, enable rich, equitable class discussions and support student learning.
- Participants will have the opportunity to increase their own skills through a variety of engaging activities and build their own Desmos Activity.

• **When** 

Initially scheduled for Summer 2020; new date will be posted on amtnj.org

• **Where** 

New location TBD

• **Cost** 

The registration is \$200.00. It includes two amazing days of workshops, continental breakfast and lunch, PD certificate.

Register online:

<https://tinyurl.com/amtnj-desmos>

or by fax/mail:

<https://tinyurl.com/amtnj-desmos-paper>

Space is limited and will be granted on a first come, first served basis.

Moving AMTNJ's PD Online

By Dianna M. Sopala, Executive Coordinator for Teacher Outreach

In March 2020, the world as we knew it was suddenly and dramatically transformed. Without preparation, teachers were forced to modify their accustomed, in-person, face-to-face education process to teaching their students completely online. To assist teachers with this transition, AMTNJ began offering free online professional development sessions through our WebPD program. So far, approximately four hundred participants have registered for about 15 sessions. The 2020 WebPD series began on April 7th with a Secondary Math Teacher Sharing Session. Additional webinars offered during the first week were Rethinking Math Problems in Secondary Math, Addressing the Standards through Online Activities in the Secondary Mathematics Classroom, and a Grade 3-5 Math Teacher Sharing Session.

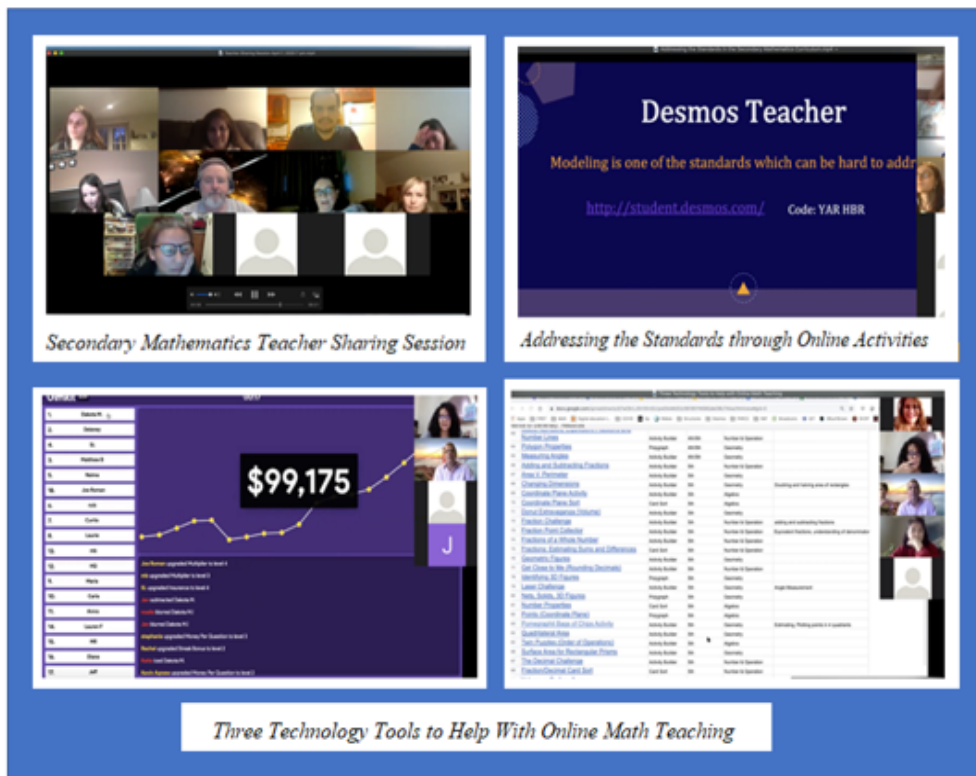
games, and engaging students while teaching in both synchronous and asynchronous learning environments. AMTNJ has been offering three different types of sessions, including traditional webinars, teacher sharing sessions, and interactive or hands-on learning workshops.

Some of the well-attended online learning sessions were: Dr. Eric Milou's Three Technology Tools to Help with Online Math Teaching, Dr. Nicole Luongo and Dr. Michael Finetti's No More Raised Hands: Using Poll Everywhere to Communicate in the Classroom, and Dr. John Kerrigan's Strategies for Teaching Math in a Synchronous Online Setting. Some unique upcoming sessions are Engaging Students in Learning Math Online: Nearpod to the Rescue, Using Online Tools in an

Inclusive Classroom Teacher Sharing Session, Build Fluency and Understanding in the Remote Learning Environment With Zearn (K-5), What Is the Rich Content Encompassing the Rules for Divisibility?, How Do You Know If Your Students Learn the Rigorous Concepts Online?, Using Origami to Explore Mathematics, and Giving a Unit Test Online - - How?

We want to thank the professors from colleges and universities throughout the state, and the administrators and teachers from our K-12 continuum, who have generously volunteered their time and expertise to provide these online learning experiences. We will continue these webinars as long as there is a

need and as long as we have presenters. Sessions will definitely continue to at least the middle of May. If you have something to share or would like to attend a session on a specific topic, please send an email to Dianna M. Sopala at diannamsopala@yahoo.com.



Three Technology Tools to Help With Online Math Teaching

These online learning experiences are for mathematics educators, K-12. The webinars address online learning tools, best practices for assisting special education students, assessment, teaching/learning through using



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2020 AMTNJ Calendar of Events

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Beginning April 7

**AMTNJ Webinars
Virtual**

November 5-6

**NJEA Convention
Atlantic City, NJ**

December 3-4

**Annual Two-Day Conference
Crowne Plaza, Princeton, NJ**

For updated information go to amtnj.org