

2017-2018



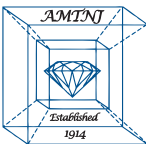
# Mathematics Workshops

**Standards-Based Mathematics Workshops  
for Grade K-12 Teachers, Coaches and Supervisors**


at

**RUTGERS**

THE STATE UNIVERSITY  
OF NEW JERSEY



Sponsored by AMTNJ  
(Association of Mathematics Teachers of NJ)

with the cooperation of **DIMACS**   
(Center for Discrete Mathematics  
and Theoretical Computer Science)  
and  
the Rutgers Department of Mathematics

## Would you like to:

- Better prepare your students for New Jersey's statewide assessments?
- Engage your students in the lessons that you teach?
- Learn more mathematics content that is relevant to your classroom?
- Incorporate standards-based, hands-on activities that motivate your students?
- Relate what you are doing in the classroom to "real world" applications?

Thirty-two, highly interactive, one-day professional development workshops for teachers of mathematics are offered during the 2017-2018 school year. These workshops address a broad range of topics that are applicable to all curricula.

These workshops are sponsored by the Association of Mathematics Teachers of New Jersey (AMTNJ) with the cooperation of DIMACS (the Center for Discrete Mathematics and Theoretical Computer Science) and the Rutgers Department of Mathematics.

There are workshops on all areas of school mathematics, as well as cross-content workshops on mathematics instruction and applications. All workshops are connected to New Jersey's state standards in mathematics. All of these workshops will help you better prepare students for the statewide assessments and provide the resources and knowledge that you need to generate new and exciting standards-based lessons.

All workshops are full-day workshops at which participants will earn six (6) professional development hours. All workshops will take place on the Busch Campus of Rutgers University-New Brunswick. Participants may attend single or multiple workshops in any order.

The fee for each full-day workshop is \$205 (\$175 for the March 16 Precalculus Conference). Discounts are available for multiple registrations on a single purchase order. There is a \$10 discount for each online registration.

Although some workshops address overlapping issues, teachers who attend multiple workshops will benefit from experiencing the different approaches workshop leaders have to helping students meet the challenges of the state standards and assessments. Our instructors are among the most experienced and respected workshop leaders in the state. The workshop topics are based on feedback and recommendations from New Jersey teachers and administrators.

You will leave these workshops with valuable tools to motivate your students, stimulate their curiosity, and promote a more positive attitude towards mathematics.

**Detailed descriptions of the workshops appear at the three websites listed on the following page.**

## MATHEMATICS WORKSHOPS 2017-2018

- For each workshop: The grade levels of teachers for whom the workshop is appropriate appears after the title of the workshop
- All workshops take place at Rutgers' Busch Campus
- Workshops begin at 9:00am and end at 3:30pm
- Discounts available for multiple registrations
- Registration codes for workshops appear in brackets

### NOVEMBER

**7 (T) An Introduction to Technology in the Elementary and Middle School Math Classroom, Grades K-8** (Nicole Ealey), [W-11-07-17]

**29 (W) Tips for Math Coaches, Math Supervisors, and Math Leaders, Grades K-12** (Angelo DeMattia), [W-11-29-17]

**30 (Th) Get Smarter! Take the SAT or ACT!, Grades 9-12** (Robin Schwartz), [W-11-30-17]

### DECEMBER

**8 (F) Developing Number Concept and Number Sense, Grades K-2,** (Makoto Yoshida), [W-12-08-17]

**13 (W) Visualizing Problem Solving through Proportional and Spatial Reasoning in Grades 3-5,** (Angelo DeMattia), [W-12-13-17]

**14 (Th) Nothing but Desmos, Grades 8-12** (Eric Milou) [W-12-14-17]

**15 (F) Is That Your Final Answer? Developing Mathematical Thinking with Questions, Grades 6-12** (Robin Schwartz), [W-12-15-17]

### JANUARY

**9 (T) The High School Math Curriculum: The Status Quo is Unacceptable, Grades 9-12** (Eric Milou), [W-01-09-18]

**11 (Th) Examining Rich Problems and Tasks Via Video, Grades 6-12** (Eric Milou), [W-01-11-18]

**15 (M) Helping Struggling Math Students: Identifying and Filling the Gaps in Students' Learning, Grades K-5** (Denise Rawding), [W-01-15-18]

**19 (F) Using Performance Assessment to Meet the Demands of the NJ Math Standards, Grades 7-12** (Liz Marquez), [W-01-19-18]

**23 (T) Empowering Students Who Ask, "When Are We Ever Going to Use This Math?", Grades 9-12** (Robin Schwartz), [W-01-23-18]

**24 (W) A Visual-Spatial Approach to Achieving Success in Algebra, Grades 7-9** (Angelo DeMattia), [W-01-24-18]

**26 (F) Singapore Mathematics, Grades K-5** (Makoto Yoshida), [W-01-26-18]

## FEBRUARY

- 13 (T) Lesson Study, Grades K-12** (Makoto Yoshida), [W-02-13-18]
- 16 (F) Utilizing Desmos to Strengthen Classroom Instruction, Grades 7-9** (Nicole Ealey), [W-02-16-18]
- 20 (T) Creating Your Own 3-Act Mathematical Tasks, Grades 6-12** (Dianna Sopala), [W-02-20-18]
- 21 (W) Rethinking Math Lessons, Assessment, and Homework with Technology, Grades 6-12** (Dianna Sopala), [W-02-21-18]
- 22 (Th) Creating Mathematical Stations, Grades 6-12** (Dianna Sopala), [W-02-22-18]

## MARCH

- 23 (F) Modern Applications of Mathematics to Sustainability of Resources, Grades 10-12** (Eugene Fiorini), [W-03-23-18]

## APRIL

- 3 (T) Building Bridges in Secondary Mathematics Classes - Creating an Environment to Facilitate the "Mathematical Practices" in the Standards, Grades 9-12** (Kathleen Carter), [W-04-03-18]
- 9 (M) Mastering Math Facts and "Perfecting" Place Value: Improving the Teaching of Foundational Skills, Grades 1-3** (Laura Giumarra), [W-04-09-18]
- 10 (T) Geometry Today, Grades 8-12** (Neil Cooperman), [W-04-10-18]
- 12 (Th) Formative Assessment, Productive Struggle, and Student Discourse, Grades 6-12** (Neil Cooperman), [W-04-12-18]
- 13 (F) Shift Your Problem Solving Paradigm, Grades 3-5** (Laura Giumarra), [W-04-13-18]
- 18 (W) Developing Mathematical Habits of the Mind: Thinking the Math as well as Doing the Math, Grades 9-12** (Tom Beatini), [W-04-18-18]
- 20 (F) A Survey of Vertex-Edge Graphs, Grades 6-12** (Joe Rosenstein), [W-04-20-18]
- 24 (T) Visualizing Fractions!, Grades 4-8** (Ira Nirenberg), [W-04-24-18]
- 27 (F) Simple Hands-on Activities for Sixth through Ninth Grade Math Students** (Ira Nirenberg), [W-04-27-18]

## MAY

- 1 (T) Simple Hands-on Activities for Tenth through Twelfth Grade Math Students** (Ira Nirenberg), [W-05-01-18]
- 4 (F) Precalculus and Astronomy: A Match Made in the Heavens!, Grades 10-12** (Ira Nirenberg), [W-05-04-18]
- 8 (T) Physics for Math Teachers, Grades 9-12** (Ira Nirenberg), [W-05-08-18]

## 32ND ANNUAL PRECALCULUS CONFERENCE

**Good Ideas in Teaching Precalculus and....  
Friday, March 16, 2018**

Audience: Grade 9-14 Mathematics Teachers and Supervisors

A dynamic annual one-day conference for teachers and supervisors of high school mathematics, now in its 32nd year.

Attend up to 4 sessions on diverse topics, plus a sharing session and plenary session. Take some really good ideas back to your classroom!

Fee: \$175

**\*\*\* THERE IS A \$10 DISCOUNT FOR ONLINE REGISTRATION \*\*\***

For more information, see conference website

**<http://dimacs.rutgers.edu/precalc-conf>**

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**Encourage mathematically talented high school students to apply for the *Rutgers Young Scholars Program in Discrete Mathematics*, a four-week residential summer program.  
[dimacs.rutgers.edu/ysp](http://dimacs.rutgers.edu/ysp)**

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**Detailed descriptions of the workshops appear at  
[dimacs.rutgers.edu/grades-9-12-workshops](http://dimacs.rutgers.edu/grades-9-12-workshops)  
[dimacs.rutgers.edu/grades-6-8-workshops](http://dimacs.rutgers.edu/grades-6-8-workshops) and  
[dimacs.rutgers.edu/grades-K-5-workshops](http://dimacs.rutgers.edu/grades-K-5-workshops)**

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**Register early to be sure the workshop has room for you, and, on the other hand, to ensure that the workshop is not prematurely canceled because of low attendance.**

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# Payment and Registration Information

To encourage implementation at your school, we are offering discounts to schools or districts that send multiple registrations on a single purchase order and to individuals who sign up for four (4) or more workshops. See the pricing schedule below:

- 1-3 Workshop Registrations: \$205 each
- 4-9 Workshop Registrations (single individual or group): \$175 each (10% discount)
- 10 or more Workshop Registrations (single individual or group): \$155 each (20% discount)

**\*\*\* THERE IS A \$10 DISCOUNT FOR EACH ONLINE REGISTRATION \*\*\***

Registrations & payment (via Paypal) may be made at the website below or by purchase order or check. Purchase orders and/or checks should be made out to **AMTNJ** and mailed to the address below.

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## How to Register

To reserve a space in the workshop, register promptly; do not wait for your district to submit materials for you.

**ONLINE:** <http://tinyurl.com/AMTNJ-DIMACS-2017-2018>

**PHONE:** (732)788-1257 from Monday through Friday, from 9:30 a.m. to noon

**FAX:** Fax form to (732)399-5388, 24-hours a day

**MAIL:** Send registration form to:

AMTNJ/DIMACS K-12 Math Workshops, PO Box 264, Bay Head, New Jersey 08742

**Admittance to the workshop may be denied if no payment method is submitted by the day of the workshop and billing information is not completed.**

Once your registration is received complete with billing information, a confirmation letter including directions and parking information will be sent to you.

**If you have not received a confirmation letter 10 days prior to your workshop, please call 732-788-1257 to confirm that your registration has been received and the workshop has not been cancelled.**

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## Cancellation Policy

A full refund minus a \$25 processing fee per registration will be issued to the appropriate party if this office is notified **in writing** at least five (5) business days prior to the workshop date. If you cancel within five (5) business days, or if neither you nor a substitute attends the workshop without notifying us, no refund will be issued.

All workshops are subject to cancellation for insufficient enrollment, in which case participants will be notified five (5) business days in advance. Workshops are cancelled if Rutgers-New Brunswick is closed.

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## Other Programs

For further information about our programs call (732)788-1257, email: [amtnj@juno.com](mailto:amtnj@juno.com), or visit <http://www.amtnj.org>

# Registration Form

## For Mail & Fax Registrations Standards-Based Mathematics Workshops for K-12 Teachers

To reserve a space in the workshop, register promptly; do not wait for your district to submit materials for you.

Your registration will not be processed unless the billing information below is completed.

**(Use a separate copy of this form for each registrant – attach multiple registrations from same school/district together)**

Last Name \_\_\_\_\_

First Name \_\_\_\_\_ Middle Initial \_\_\_\_\_

Badge Name (First Name to be printed on Name Badge i.e. "James" = "Jim") \_\_\_\_\_

Supervisor Name \_\_\_\_\_

Grade(s) Taught \_\_\_\_\_

School \_\_\_\_\_

School Address \_\_\_\_\_

School City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Work Phone \_\_\_\_\_

Fax \_\_\_\_\_

Home Address \_\_\_\_\_

Home City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cell Phone \_\_\_\_\_ Home Phone (*need in case of inclement weather cancellation*) \_\_\_\_\_

Home Email (*school servers often block outside email*) \_\_\_\_\_

**Please check appropriate box:** (remember to attach separate forms for each registrant):

1-3 Workshop Registrations: \_\_\_\_\_ x \$205 = \_\_\_\_\_ total due

4-9 Workshop Registrations: \_\_\_\_\_ x \$175 = \_\_\_\_\_ total due

10 or more Workshop Registrations: \_\_\_\_\_ x \$155 = \_\_\_\_\_ total due

Precalculus Conference Registrations: \_\_\_\_\_ x \$175 = \_\_\_\_\_ total due

Payment will be made by purchase order (fill out form below).

Payment will be made by personal check (include with registration).

**THERE IS A \$10 DISCOUNT FOR EACH ONLINE REGISTRATION**

**Billing Information (Required)** — Please fill in the following if using a Purchase Order for payment and the billing address is different from the school address above. If it is the same, please check the box below. **Registrations will not be processed if the following information is not completed.**  **Please use the work address above**

Billing or Board of Education Name \_\_\_\_\_

Billing Address \_\_\_\_\_

Billing City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

**Please enter the code number for each workshop you would like to attend (to register for more than eight, copy and attach additional sheets):**

Workshop Code Number

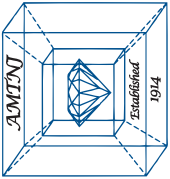
Workshop Code Number

1. \_\_\_\_\_ 5. \_\_\_\_\_

2. \_\_\_\_\_ 6. \_\_\_\_\_

3. \_\_\_\_\_ 7. \_\_\_\_\_

4. \_\_\_\_\_ 8. \_\_\_\_\_



**AMTNU / DIMACS**  
**K-12 Math Workshops**  
**P.O. Box 264**  
**Bay Head, NJ 08742**



## Mathematics Workshops for K-12 Teachers

**Please pass this brochure along to:**

- Mathematics Supervisor**
- Curriculum Leader**
- Colleague**

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