

# Points & Angles

Newsletter of the Metropolitan Mathematics Club of Chicago

Volume XLV No. 1, Sept. 2015

## Supporting English Language Learners In Mathematics Classrooms

### September Speaker Nora Ramirez



**From I-90 & Southbound I-294:** Exit at I-190 West to O'Hare; Exit onto North Mannheim Rd.; Take Mannheim Rd. North 2.25 miles.

**From Northbound I-294:** Exit at West Touhy Ave.; Take Touhy Ave. to Mannheim Rd.; Turn right on Mannheim Rd.

**Public Transit:** Take the CTA Blue Line to the Rosemont Bus Terminal; Take Pace Bus #223 to Touhy Ave. & Lee Rd.; Walk East on Touhy to Mannheim Rd.

#### Friday, September 11, 2015

5:30 PM Doors Open, 6:00 PM Social Hour

7:00 PM Dinner & Talk

#### Fountain Blue Banquets & Convention Center

2300 Mannheim Rd., Des Plaines

(847) 298-3636

\$43 for Members, \$49 for Nonmembers

#### Reserve by Noon, Friday, Sept. 4

Online at [www.mmccchicago.org](http://www.mmccchicago.org)

or by phone at (630) 907-5023

Please note that this reservation date is earlier than usual due to the Labor Day holiday.

Our classrooms reflect the changing face of society. The U.S. population has dramatically increased in the past several decades as nearly 30 million immigrants have settled here. Much talk about immigration has centered on immigration laws at the national and state levels, but a more important area of interest to us teachers is the effect immigration has on our classrooms. The share of English Language Learners (ELL) students in Illinois K-12 schools has increased by more than 10,000 between the 2011-12 and the 2012-13 school years. More than 56% of ELL students in Illinois public schools were enrolled in school districts located in Cook County, including Chicago Public Schools. Collar Counties of Chicago area (Du Page, Lake, Kane, and Will) enrolled a little more than 30%.

Thinking about how these statistics impact you as a mathematics teacher and educator is one reason why you should plan on attending Nora Ramirez's presentation on September 11 at the first dinner meeting for the 2015-16 school year. "Teaching English language learners is just good teaching" is often heard in a discussion about teaching ELLs. While good teaching is a necessity, there are additional habits of mind and things one must do if we are to be effective in providing excellence and equity for ELLs in our mathematics classrooms. Our role as educators is to use strategies from both research and practice that we know to be effective. Challenging tasks and a language rich social environment are necessities if students are to meet the current content and mathematical practice standards.

Nora G. Ramirez is a teacher, be it of other teachers, coaches, administrators, parents or students. Before working at Arizona State University and Maricopa Community Colleges as a professional developer, mathematics specialist and principal investigator of several NSF-funded projects, she taught middle school and high school mathematics, primarily in Texas. Nora also served as a member of the Advisory Committee for the Education and Human Resources Directorate of the National Science Foundation. She is an author and co-editor of *Beyond Good Teaching: Advancing Mathematics Education for ELLs* published by NCTM. Currently, she is the President of the Arizona Association of Teachers of Mathematics as well as a mathematics education consultant working with educators in rural, urban and suburban school districts. Her work focuses on excellence and equity in mathematics classrooms, all with an emphasis on English language learners.

Mark your calendars now for September 11 at Fountain Blue. Invite your colleagues about this presentation! Come with your whole department or at least one or more colleagues or friends! This is a presentation you, and they, do not want to miss!

# Points From The Interior

BY PATRICIA TRAFTON

Welcome back to another exciting year with the Metropolitan Mathematics Club of Chicago (MMC)! I hope the summer was refreshing and invigorating for you! Last year was another terrific year for MMC. Not only did we have six terrific speaker dinner meetings, but we had four additional outstanding events - the annual Conference of Workshops, an evening of Ignite talks, a Fall Saturday of Workshops and a Summer Conference of Workshops. These made for a phenomenal amount of high-quality professional development opportunities for math teachers and educators in the Chicago area and beyond! A most heartfelt thanks goes to all of you who generously gave of your time and talent in making these events a success, whether you were an organizer, a speaker, and/or an attendee. We could not have done it without you! Thank you, too, to John Diehl, our outgoing President, to Richard Stalmack, Dan Hall, and Stacey Ambrozich, our departing Board members, and to Kevin Wiland, who served as Past President this past year. And once again, we are proud to say that MMC was able to award three scholarships to outstanding high school seniors pursuing careers in mathematics education. We are again thankful to the Filliman family who generously sponsored two of the scholarships.

Like the start of a new school year, I am very excited about our lineup of speakers for 2015-16. Kicking off the year, Nora Ramirez, Professor Emeritus from Arizona State University and President of the Arizona Association of Teachers of Mathematics, will challenge us to understand why teaching English Language Learners involves more than just good teaching. Nora is first and foremost a teacher, having taught middle school and high school students, primarily in Texas. Among her many professional activities, she is a founding member and past-president of TODOS: Mathematics for ALL (an affiliate of NCTM that advocates for equity and excellence in mathematics education for ALL students - in particular, Latina/o students), and an advisory board member for several mathematics education and ELL related projects. More details about her presentation and professional background are on the front page of this issue of Points and Angles.

In October, Edna Bazik, from National Louis University, will share with us her Ten Keys to Support Mathematics Understanding. Edna will stress that teachers who use effective research-based instructional strategies and who distribute leadership roles among their students are able to unlock the potential which rests inside each student. Edna has extensive experience as a middle school mathematics teacher and mathematics educator and is very active in the Illinois Council of Teachers of Mathematics as well as national and international mathematics organizations and events. She also is a member of the PARCC committees for Common Core State Mathematics Assessments, grades 3-11.

In November, Rochelle Gutierrez, Associate Professor of Latina/o Studies at the University of Illinois at Champaign-Urbana, will share her research about Mathematics Teaching, Social Justice, and Creative Insubordination. Gutierrez's research focuses on the structural and pedagogical factors involved in equity for marginalized students, especially African American and Latina/Latino students.

Early in my career as a mathematics educator, I had the immense pleasure of working for and with Dale Seymour as the Mathematics Specialist and Exhibits Manager of Dale Seymour Publications. Thus, I am

# Points From The Interior Continued

thrilled that Dale Seymour, author and publisher of numerous math enrichment publications at Creative Publications and Dale Seymour Publications, both of which he founded, has agreed to leave the warmth of the San Francisco Bay Area to join us in December. Dale will talk about highlights of his teaching and publishing careers and will also show a number of math sculptures he has created during his retirement.

We will begin the new year with one of very own. Steve Viktora, Mathematics Department Chairperson of New Trier High School, will engage us in a historical look at word problems in his talk *Two Chariots Leave Different Cities at the Same Time: A Lively Look at Word Problems Through the Ages*. With the new year comes a new commitment to encourage more of your colleagues to become involved in MMC. Perhaps you can entice them to join you at our annual Conference of Workshops to be held at Lincoln Way Central High School on Saturday, February 6, 2016.

To help usher in spring, which hopefully will be only a couple of weeks after our March 11, 2016 dinner meeting, we'll welcome Francis "Skip" Fennell, past President of the National Council of Teachers of Mathematics and Professor of Education and Graduate and Professional Studies at McDaniel College in Maryland. Skip, whose expertise is in elementary and middle school mathematics, will have plenty of food for thought for our high school math educator members and friends with his presentation on the Critical Foundations for Establishing Number Sense.

To finish out our year, Zalman Usiskin will be our speaker on May 13, 2016. Zal needs no introduction; this will be the 25th time he has spoken at MMC and continues a tradition dating back to 1982 in which he has been our speaker at the last meeting of every even-numbered year. Zal will share with us *The Real Big Ten: The Ten Toughest Mathematical Ideas for High School Students to Learn, and How to Approach Them*.

Quite a line-up of speakers, I'd say. So mark your calendars today! You'll definitely want to be at each of these dinner meetings! Bring a colleague, bring a friend! To remind you of all of these meeting dates, speakers, and presentation titles, we've enclosed a poster with all of this information for you. Please make copies of this poster and post them all around your office or school. Invite your colleagues to join you for these stimulating mathematics talks accompanied by collegiality and good food and drink.

While you're talking up the positive virtues of the Metropolitan Mathematics Club of Chicago, also mention that our annual Conference of Workshops is one of the best professional development bargains in the greater Chicago area. What makes our Conference of Workshops so wonderful is the quality of speakers that present at the conference. So tell Carol Nenne and Mary Wiltjer that you will gladly speak at the conference; then go and fill out the speaker form that's on the MMC website.

Here's hoping that your school year is off to a tremendous start! I look forward to seeing you on September 11 and at the rest of our events throughout the 2015-16 school year!

# News Of Note

By JOHN McCONNELL

## **Presidential Award**

MMC congratulates Darshan Jain, Director and Teacher of Mathematics at Stevenson High School, on being selected as one of the 108 mathematics and science teachers named by President Obama as recipients of the Presidential Award for Excellence in Mathematics and Science Teaching. The winners are selected by a panel of distinguished scientists, mathematicians, and educators following an initial selection process at the state level.

The 2015 awards honored outstanding teachers in grades 7 through 12 across the country. The 2016 awards will recognize outstanding teachers in grades K through 6. For more information, see <http://tinyurl.com/pyxa69u>.

## **U.S. Wins Math Olympiad For First Time in 21 Years!**

In one of this year's most intense international competitions, the United States has come out as best in the world - and this time, we're not talking about soccer. In July, the top-ranked math students from high schools around the country went head-to-head with competitors from more than 100 countries at the r in Chiang Mai, Thailand. And, for the first time in more than two decades, they won. For the complete article, see <http://tinyurl.com/qavs6gc>.

## **NCTM and The Math Forum Merge**

The National Council of Teachers of Mathematics (NCTM) announced that The Math Forum, an extensive online resource for the mathematics education community with nearly 100,000 subscribers, will become a part of NCTM. The merger, consolidating the resources of the two organizations was announced to attendees at Twitter Math Camp at Harvey Mudd College in Claremont, California on July 24, 2015.

“The merging of NCTM and The Math Forum is an exciting development not only for both organizations but also for mathematics education overall,” said NCTM President Diane Briars. “The Math Forum has a long and rich history of supporting high-quality mathematics education-through its online resources, such as Ask Dr. Math, Teacher2Teacher, district- and school-level professional development, and research. This arrangement will make it possible for The Math Forum's outstanding staff of dedicated mathematics educators, mathematicians, and researchers to continue to do this work.”

The Math Forum will retain its own identity and its resources will not change. Subscribers will continue to have access to all its existing content, materials, and resources. The merger will extend the Council's reach to a vibrant, active base of subscribers dedicated to mathematics and mathematics education. Both NCTM and The Math Forum can leverage what they do well and bring additional resources to the ways they support the field.” (See the NCTM website for the complete article about this merger - <http://www.nctm.org/News-and-Calendar/News/NCTM-News-Releases/The-Math-Forum-Joins-NCTM/> )

# News Of Note Continued

## Research grants for grades 7-12 Classroom Research

Do you have a idea about teaching mathematics that you wish someone somewhere would try out and research? That person could be you. The NCTM has announced a \$6000 grant for a grade 7-12 teacher (or teachers) to conduct classroom-based research in precollege mathematics education in collaboration with college or university mathematics educators. More information is at <http://www.nctm.org/Grants-and-Awards/grants/7-12-Classroom-Research-Grants/>.

## ICTM ANNUAL Conference

Registration is open on the Illinois Council of Teachers of Mathematics website ([www.ictm.org](http://www.ictm.org)) for the ICTM Annual Conference being held on October 23 and 24 in Tinley Park.

The Conference Program Book is available now at <http://ictm.org/annualmeeting.html>.

Register for the conference at <http://ictm.org/download/conferenceregistration15.pdf>.

If you want to warm-up your knowledge absorption skills in advance of this year's conference, you can view videos of many significant sessions from last year's conference.

## USACAS 9 - a Success

The 9th International USACAS July 17- July 19 in Cleveland brought together mathematics teachers and researchers from around the world to discuss the use of computer algebra systems (CAS) in mathematics instruction, curricula, and assessment. USACAS was sponsored by MEECAS, an MMC offshoot, at the Hawken School. MMC members presenting included Carrie Fraher, John Diehl, and Zalman Usiskin.

## The Fantastic Summer Workshop Presenters



A thank you goes out to our fantastic summer workshop presenters. as we couldn't do it without them!  
From left to right: Nancy Powell, John Benson, Ray Klein, Sheila Hardin, Steve Viktora, and Mary Wiltjer.



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# The MMC Conference of Workshops is back in 2016!

To repeat the excellence,  
**WE NEED YOU TO PRESENT!!**

The conference will be on Saturday, February 6<sup>th</sup>  
 at Lincoln-Way Central High School in New Lenox, IL

- Workshop format: 75-minute sessions where participants are actively involved.
- Looking for speakers from all grades K – 16.
- New speakers are welcome.
- Co-presentations are encouraged.
- Various topics needed.
- Encourage other potential speakers to fill out the online speaker form.
- We'll have coffee, carbohydrates, and calculators. What else could a workshop need? You!!
- Have questions? Contact Mary or Carol at mwiltjer@glenbrook225.org or cnenne@comcast.net.
- Fill out the speaker form online at [www.mmcchicago.org](http://www.mmcchicago.org) by September 30<sup>th</sup>.

**Turn in your proposal  
 at [mmcchicago.org](http://mmcchicago.org)  
 by September 30th!!**

## Board Report

BY LYNN BOND

The MMC Board of Directors met on May 30th at Kevin Wiland's home in Park Ridge. The board thanked the members whose terms have expired for their service, welcomed new members, and elected officers.

The program for the 2015-16 year has been finalized. Mark the dates on your calendar and bring colleagues for some valuable professional development and networking!

The Conference of Workshops will be held February 6, 2016 at Lincoln-Way Central High School in New Lenox. Speaker forms will be available on the MMC website from July 1st thru the end of September. Mark your calendars, and sign up soon!

# ln(blogs)

BY JOHN O'MALLEY

Once again, I am hoping to share a new blog with you every issue. Most of the time, blogs contain different ways to teach topics and have resources for you to use. The one I am sharing with you this month is not one you will find worksheets for you to use but I promise you is just as worthwhile. Ben Orlin has been on my radar for about two years now and he never disappoints. His insights into student thinking continually impress me and I feel that he has great thoughts about teaching. Ben has a punchy style that is always entertaining and always supplies his posts with bad drawings (that are impressive in my opinion). I hope you subscribe to his blog and enjoy his posts as much as I do.

**<http://mathwithbaddrawings.com/>**

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		<small>SPEAKER FUND</small> \$	
		<b>TOTAL AMOUNT OF CHECK</b> \$	

**Make check payable to *MMC***

**MMC Membership and Change of Address Form**

Mail completed form and check to:

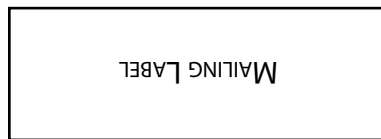
MMC  
 7339 W. Ibsen St.  
 Chicago, IL 60631

# Upcoming Events

Fri., Sept 11	Nora Ramirez	Supporting English Language Learners In Mathematics Classrooms
Fri., Oct 2	Edna Bazik	The 10 Keys To Support Mathematics Understanding
Fri., Nov 6	Rochelle Gutierrez	Mathematics Teaching, Social Justice, & Creative Insubordination
Fri., Dec 11	Dale Seymour	Thanks For The Memories: What I've Learned From 60+ Years Of Teaching, Writing, & Publishing About Mathematics
Fri., Jan 8	Steve Viktora	Two Chariots Leave Different Cities At The Same Time... A Lively Look At Word Problems Through The Ages
Sat., Feb 6	MMC Conference Of Workshops	Lincon-Way Central High School
Fri., Mar 11	Francis "Skip" Fennell	Critical Foundations For Establishing Number Sense
Fri., May 13	Zal Usiskin	The Real Big Ten: The Toughest Mathematical Ideas For High School Students To Learn, And How To Approach Them

Send upcoming event items to [jomalley@glenbrook225.org](mailto:jomalley@glenbrook225.org) no later than the date of the MMC dinner meeting preceding the issue in which the item should appear. All items are subject to editing.

*Your membership renewal date appears in the upper right corner of the label.*



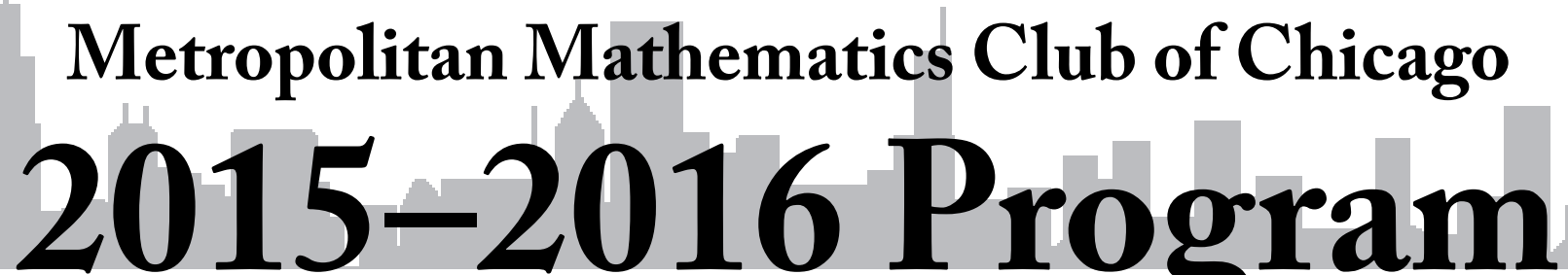
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## Index

- 1 September Meeting Info
- 2 Points From The Interior
- 3 Points From The Interior Cont.
- 4 News Of Note
- 5 New Of Note Continued
- 5 Summer Workshop Speakers Picture
- 6 MMC Conference Of Workshops Flyer
- 6 Board Report
- 7 The Log Of Blogs
- 7 Change Of Address Form
- 8 Upcoming Events





# Metropolitan Mathematics Club of Chicago 2015–2016 Program

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In Mathematics Classrooms**

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**MMC Conference Of Workshops**

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May 13, 2016—Zal Usiskin  
**The Real Big Ten: The Toughest Mathematical Ideas For High  
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Make your reservations and special meal requests no later than the Monday before the meeting if possible.  
Reservations can be made online at [www.MMCCHICAGO.ORG](http://www.MMCCHICAGO.ORG) or by phone at (630) 907 -5023