



Illinois Council of Teachers of Mathematics

BULLETIN

Serving Teachers of Mathematics and Computer Science

Vol. XXXVI, Issue 1

February 2015

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President's Message February 2015

by Robert Mann, ICTM President

Hello and welcome to 2015!

Recently, a twitter post (that's right conference attendees, I am still tweet-

ing—sort of) acknowledged the importance of mathematics as a tool. Many subsequent tweets agreed that mathematics is valuable in today's society and that it is used in business, science, engineering, social sciences, and many other fields. In fact, we know that mathematics is such a valuable tool, that college and career readiness standards require a deep understanding of many aspects of this important subject for all students. Yet, though this is reason to promote the teaching and learning of mathematics, for many of us, mathematics is much more than a mere utility.

The truthfulness of the familiar phrase "one person's trash is another one's treasure" (as evidenced by the success of garage sales, flea markets, e-bay, and television shows like *Pawn Stars* and *American Pickers*) may be paralleled in mathematics by the adage "one person's utility is another one's utopia." For some, math is a hurdle they must get over, a utility needed for success, a tool they must master (at least for a moment) in order to accomplish their goals, and achieve their dreams. Yet, to others, that very mathematics is our dream, our utopia, our perfect little paradise where definitions and relations and logic yield theorems, formulas, and unwavering truths.

The Pythagorean Theorem, for example, is a tool that many students remember and which has applications in construction, architecture, and many other professions. Yet, for many, the real beauty of this relationship is seen when constructing and comparing actual squares on the legs and hypotenuse of a right triangle, its distinction is most appreciated when recognized as a special case of the Law of Cosines, and its power is most evident when investigating a myriad of elegant proofs of this simple yet profound relationship. None of these explorations are needed to "solve for the missing side," yet each of them reveals more of this gem's intriguing brilliance.

In mathematics, we often create our own utopias—beginning with a small set of definitions, or rules, or building blocks and constructing, analyzing, and proving new shapes, sets, properties, ideas, and outcomes. Unlike the real, non-perfect world, in mathematics, if we can prove something will always work given certain conditions, then we know it will in fact work that way when needed. Though sometimes complicated, we trust the mathematics and we admire its order and precision. Thus, mathematics can be used to explain the world around us and it can be used to create worlds worthy of explanation.

As teachers, I believe it is important for us to help students use mathematics as a tool, but also to appreciate it as a treasure. We should strive to improve their mathematics' aptitude and attitude. Learning mathematics should extend beyond numbers, shapes, and equations to include discussions about truths, and discoveries, and the search for perfection. It is an amazing result that when you take a circle, any circle, and find the ratio of its perimeter to its diameter, you always get a fascinating, non-repeating, non-terminating, decimal value. An irrational number of infinite length and nearly infinite applications, a number so unique and so special it has been given a special name— π . It may not be a slice of heaven, but a slice of π is a beautiful, transcendent piece of mathematics and children need to experience its enticing flavor.

This year, March 14th will be an **ePIC** π -day in that the date will read 3-14-15 and thus match the first 5 digits of this remarkable number. I encourage you to celebrate that day and to celebrate that number with your class in some way. ICTM will post some π -day related resources on our website and facebook page, and we may even send out a few π -day tweets (**pitters?**). I hear some may even run a 5k (3.14 miles?) that day to commemorate its significance. The number π , like mathematics itself, is an essential tool with

Continued on p. 2

Mission: Illinois Council of Teachers of Mathematics is a community of PreK through Post-graduate (PreK-20) educators promoting equitable, high quality mathematics teaching and learning through leadership, collaboration, advocacy and professional development.

Vision: The Illinois Council of Teachers of Mathematics is the state leader in mathematics education. ICTM is committed to sound pedagogy, teacher collaboration, and professional development, ensuring student achievement through engagement in meaningful and rigorous instruction. As a respected leader in mathematics education at the school, district, state, and national levels, ICTM serves as a collaborative partner to promote the achievement of every student.

President-Elect's Report

by George Reese
ICTM President-Elect



PARCC is Coming and your colleagues in ICTM have information to share

The Christmas break was a time to relax but also a chance to catch up with a task that I very much enjoy. I edited one of the videos from last October's ICTM conference. For the past several years, ICTM has been recording a selection of sessions from the annual conference and making them available on the ICTM YouTube channel. You can see them at <https://www.youtube.com/user/ictmmedia>

The presentation that I chose to edit was one by Heather Brown and Kathy Felt that updated attendees on the PARCC assessment. As I listened to the talk--trying to enhance the audio on questions from the audience and add links to web sites as they were mentioned - I also realized that presentations like this are very important for teachers to see. Being part of ICTM and its conference really can help teachers help their students do their best on these assessments. Of course, no one can really show the connection between any particular professional development opportunity and student test performance, or more important, student achievement in mathematics. Nonetheless, while Kathy and Heather were present-ing the lessons learned from piloting the PARCC, it seemed obvious to me that teachers present in the room had special information about what to expect in these early days of test preparation. For example, some students in the pilot group found an answer using the online calculator but forgot or did not realize they needed to enter it into the online form of the test. Also, (this is probably not a surprise to anyone reading this) students have trouble with the multiple select items, those items that look like multiple choice but for which there could be more than one correct answer.

There are many concerns about the PARCC test: the speed with which it has been launched, the high stakes associated with it, the timing of the test so near to ACT and the AP, and the number of days for testing are just a few of the concerns raised. But regardless of how one feels about the test, it is prudent to be as informed as possible. And ICTM conference sessions like "PARCC Update" are an excellent way to learn about the nitty-gritty details.

Check out the video. You will hear about the Model Content Frameworks, The Test Blueprints, The Evidence Statements, and much more. Best of all are Kathy's lessons learned from having students participate in the pilot. I was especially impressed with Kathy's insight that teachers are going to need to do less "leading," i.e., asking questions that tell students the method, such as, "Solve using the Quadratic Formula." I took this as a reflection on her own practice that she was sharing with the group, and now with all of us who can see the video.

If, like me, you were unable to attend the session in person, be sure to check it out online. The PARCC may not be the fun part of loving and learning mathematics, but it is a real challenge, and ICTM is providing its members with an opportunity to share and learn from each other as the PARCC approaches.

Board Chair Report

by Kara Leaman, ICTM Board Chair



Hi ICTM Friends! The November 8, 2014 ICTM Board meeting was held in Bloomington. The Board discussed positive changes to the format of the 2014 ICTM Annual Meeting. Next year's conference will be similar, with all sessions taking place on Friday and Saturday. This year's conference brought an attendance of approximately 847 people, and much discussion arose about ways to continue to increase this number. A motion was made and approved to rename the Annual Meeting as the ICTM Annual Conference. In addition, a motion was approved to include the ISBE math consultant as a complimentary guest to the ICTM Annual Conference in the future. Another motion was approved for the 2015 Annual Conference: Lead speakers will pay a fee for the annual conference, at 40% of the 2-day member early bird registration fee, and the 60% reduction in fee includes the main speaker and lunch. Secondary speakers will pay the full registration fee. This information will be shared on the proposal to speak at the Conference.

The 2015 Nomination Slate for open Board positions was approved. Also, our membership was reported to be currently at 1389, up 150 since the summer. We discussed ways to keep reaching out to young teachers, and a Twitter Chat was suggested. Two of our Board members offered to lead a chat on Twitter with the hashtag #ILMathChat. The ICTM Twitter account is @mathictm. To participate in the monthly chat you can search the hashtag #ILMathChat on Twitter. It is still uncertain what night of the week will work best, but the first trial will be on the 3rd Monday of the month at 6:30. The great thing about a Twitter Chat is the chat stays on record and is always available to view simply by searching the hashtag #ILMathChat! Other discussion followed about additional ways to communicate with the membership electronically, and it was reported that only 12% of the membership is on the ICTM listserv, while 30% of the members of the listserv are ICTM members. Therefore eblasts seem to be a better way to reach members at this point. Finally, the criteria for all the ICTM Awards were discussed and some changes were approved.

In the afternoon working session, some worked on a process for ICTM to apply to be a provider of professional development credits with the state in 2015. Others worked on getting the recorded sessions from the 2014 Annual Meeting edited so they can be posted on the website. The next Board meeting will be online and is scheduled for February 21, 2015.

President's Message, continued from p. 1

applications, connections, and utilitarian value. But it is also an example of a Utopia where even the difficult to comprehend becomes a splendid entity to study and envision.

Is it just coincidence that you cannot have Utopia without pi?

I realize I have been talking in circles (yuk, yuk) and have maybe veered off on a few tangents...but my message is simply this: celebrate the mathematics whenever you can. Emphasize its majesty, its power, its universal truths and help students appreciate it as well as use it. Mathematics is a tool to be utilized **and** a treasure to be shared. Classrooms are rarely seen as **Utopias**, but with the help of mathematics, maybe a more **Utopian** enterprise can be achieved. Some may say that I'm a dreamer but "one person's utility is another one's utopia"—and I'm pretty sure I'm not the only one. I hope you have a productive 2015 and a perfect day!

PLAN NOW:

ATTEND YOUR LOCAL

ICTM

REGIONAL CONFERENCE

**SIU SOUTHERN SECTION REGIONAL:
JOHN A LOGAN COLLEGE-
CARTERVILLE**

Thursday
February 19, 2015

For more information, contact:
jbecker@siu.edu

WIU-MACOMB

Friday
April 10, 2015

For more information, contact:
d-lafountain@wiu.edu

www.wiu.edu/cas/math/teachers_conference

EIU-CHARLESTON

Tuesday
April 7, 2015

For more information, contact:
dkmeadows@eiu.edu

www.eiu.edu/adulted/mathconf.php

**Illinois
Mathematics
Teacher
Journal**

Current issue online now
at www.ictm.org/journal



NCTM Reminder:

Help your professional organizations support each other! When renewing your *National Council of Teachers of Mathematics* Membership online, don't forget to checkmark the *Affiliate Rebate* box and designate ICTM as your affiliate organization. NCTM's Affiliate Rebate program provides a per-member rebate to ICTM based on this feedback. Your attention to this detail helps provide support for your local professional organization.

ICTM Listserv Update

***Do you receive e-mails
from the ICTM Listserv?***

If you answered no, then consider subscribing today. Subscription to the Listserv is a benefit of your ICTM membership. E-mails sent through the Listserv often give information about upcoming conferences, details about professional development opportunities, information about ICTM awards and scholarships, links to math related websites and news articles, and questions/announcements from other math teachers around the state. All subscribers to the Listserv can send out messages to the recipient list. To sign up, visit <http://www.ictm.org/ListServe.htm> and complete the short online form. You can choose to unsubscribe from the List Serve at any time. Subscribe today and join the conversation!

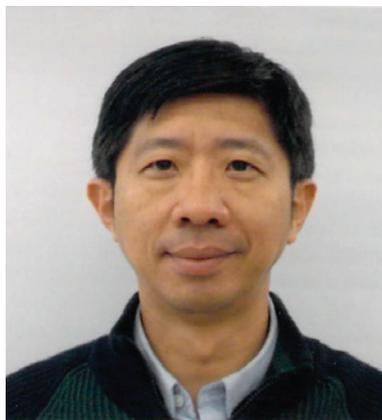
**Math Musings
with Martin**

The parallel line was late
returning from vacation.

Why? It missed the plane.

Submitted by Martin Funk, ICTM Director 9-12

ICTM Director At-Large



Candidate Name: Cheng Yao Lin

Current Position: Associate Professor (tenured), Southern Illinois University Carbondale (2010–present)

Past Experience:

- Assistant Professor, Southern Illinois University Carbondale, August 2004–2010.
- Visiting Assistant Professor, Illinois Wesleyan University, Normal, IL, January–May, 2004.
- Graduate Teaching Assistant/ Research Assistant, University of Illinois at Urbana-Champaign, Fall 1998–Fall 2003. [Professors Kenneth Travers and Arthur Baroody]
- Mathematics Teacher, National Jen-Ai School, Chang-Hwa, Taiwan, Spring 1995–Summer 1997.

Education: Ph.D. in Mathematics Education, University of Illinois at Urbana-Champaign 2003

ICTM Involvement and Activities:

- Program Chair: Annual Conference on Teaching Mathematics [ICTM/ Southern Section], SIUC, Carbondale, IL. (2005–2014)
- Lin, C. Y. (2013, April). Teaching Addition Across Different Cultures. Paper presented at the 56th Annual Conference on the Teaching of Mathematics, Charleston, IL.
- Lin, C. Y. (2009, April). Multiplication Algorithms. Paper presented at the 52nd Annual Conference on the Teaching of Mathematics, Charleston, IL.
- Lin, C. Y. (2008, April). Pythagorean theorem proofs. Paper presented at the 51st Annual Conference on the Teaching of Mathematics, Charleston, IL.

Other Professional Activities:

- Editor: Electronic Journal of Mathematics and Technology (2012–2014)
- Associate Editor: Journal of Mathematics Education (2012–2014)
- Annual Convention Committee, School Science and Mathematics Association (2010–2012).
- Membership Committee, School Science and Mathematics Association (2007–2010).
- Session chair, SIG-Research in Mathematics Education, the 2012 American Educational Research Association (AERA) Meeting in Vancouver, BC, Canada.”
- Session chair (Division K, Section 5), Research in Mathematics Education, the 2011 American Educational Research Association (AERA) Meeting in New Orleans, LA.
- Session chair (SIG/RME), Research in Mathematics Education, the 2011 American Educational Research Association (AERA) Meeting in New Orleans, LA.
- Session chair, Research in Mathematics Education, the 2010 American Educational Research Association (AERA) Meeting in Denver, Colorado.
- Session chair, Research in Mathematics Education, the 2008 American Educational Research Association (AERA) Meeting in New York City, New York.
- Discussant, the 2008 American Educational Research Association (AERA) Meeting in New York City, New York.
- Session chair, Research in Mathematics Education, the 2007 American Educational Research Association (AERA) Meeting in Chicago, Illinois.
- Discussant, the 2007 American Educational Research Association (AERA) Meeting in Chicago, Illinois.

Affiliations:

- National Council of Teachers of Mathematics (NCTM)
- Mathematical Association of American (MAA)
- American Educational Research Association (AERA)
- Special Interest Group/ Research in Mathematics Education (SIG/RME)
- Psychology in Mathematics Education (PME)
- School Science and Mathematics Association (SSMA)
- Chinese American Educational Research and Development Association (CAERDA)
- Illinois Council of Teachers of Mathematics (ICTM)
- Southern Illinois Mathematics Council (SIMC)

Honors: U.S. Fulbright Scholar in Specialist Program (2014)

ICTM Director At-Large



Candidate Name: Sendhil Revuluri

Current Position: Associate Director, Suburban Cook County Mathematics Initiative, Learning Sciences Research Institute, University of Illinois at Chicago, Chicago, IL (since August 2010)

Brief Statement: Born and raised in Illinois, Sendhil got into mathematics early, he didn't get into mathematics *education* until a first career in finance and a sojourn on the East Coast. He helped start a new public high school in the South Bronx, led the math department, and was recognized as a Math for America Master Teacher. Since then, he has worked to promote all students' learning and engagement in mathematics by supporting teacher reflection, leadership, and collaboration at levels ranging from individual classrooms to the whole state. He enjoys visiting lessons, working with students and teachers, designing and facilitating professional development, and writing and thinking about how mathematics education can work better for teachers, students, parents, and others.

Past Experience:

- Senior Curriculum Developer, Intensified Algebra, University of Illinois at Chicago, Chicago, IL (October 2009–September 2010)
- Senior Instructional Specialist for Secondary Mathematics and High School Mathematics Manager, Chicago Public Schools, Chicago, IL (August 2008–October 2009)
- Founding mathematics teacher and department chair, Bronx Academy of Letters (public secondary school), Bronx, NY (June 2003–August 2008)
- Lecturer, Hunter College (City University of New York), New York, NY (2006–2008)
- Consultant, Educational Policy Improvement Center, CUNY Research Foundation, Education Development Center, National Science Foundation, and VGA Consulting (2006–present)

Education:

- M.S.T. in Secondary Mathematics Education, Pace University (2005)
- B.A. in Mathematics and Physics, The University of Chicago (1994)

ICTM Involvement and Activities: Presenter, ICTM Annual Meeting, 2010, 2011, 2013, and 2014.

Other Professional Activities:

- Presenter at other local, regional, and national professional conferences (including MMC Conference of Workshops, IMSA Professional Learning Day, iMATHination, NCTM Regional and National Conferences, NCSM Annual Conference, and Learning Forward Annual Conference) on topics including combinatorics, assessment, student discourse, instructional collaboration and coaching, and interventions for struggling students.
- Planning Committee, Chicago Symposium on Excellence in Teaching Mathematics & Science, 2009–present.
- Panel reviewer, National Science Foundation (Discovery Research K–12), 2013.
- Member, Illinois American Diploma Project Mathematics Core Content Team, 2009.
- Participant, Park City Mathematics Institute High School Teachers Program, 2006–8.

Affiliations:

- Secretary, Board of Directors, Payton Citywide Math Circle, 2011–present.
- Board of Directors, Bright Promises Foundation, 2013–present.
- Member, MMC, ICTM, NCTM, NCSM, and ASCD.

Honors:

- Illinois Mathematics and Science Academy Alumni Titan Award, 2009.
- Math for America Master Teacher, 2006.

ICTM Director EC-6



Candidate Name:
Glory Jurich-Sarna

- Current Position:**
- Classroom Teacher, Looping 3rd to 4th Grade, Indian Springs School District 109, Brodnicki School, Justice, Illinois, 2013–2014
 - Remedial Teacher: K–6, Math and Reading, Indian Springs School District 109, Justice, Ill. 1998–2013

Education:

- M.A., Education, Specialization: Mathematics Education, Governor’s State University, 2003
- B.S., Elementary Education, Eastern Illinois University, 1978
- Associate Degree: Liberal Arts, Moraine Valley Community College, 1976

ICTM Involvement and Activities:

- ICTM Conference Presenter, 2010–2014
- Western Regional ICTM Conference Presenter, 2011–2014

Other Professional Activities:

- Metropolitan Math Club Presenter, 2009–2014
- SCISC4: South Cook Workshops, 2009–2014
- SDE Extraordinary Educator Conference Presenter, 2013

Affiliations:

- NCTM member
- ICTM member
- MMC member

Honors:

- ICTM Certificate of Recognition, 2000



Candidate Name: Denise Brown

Current Position: 5th grade teacher, Carruthers Elementary, Murphysboro, IL 2007–present

Past Experience: teacher K–8, Christ Lutheran School, Jacob, IL 2000–2007

Education:

- Masters in Math and Science Education, SIUC, 2010
- Bachelor of Arts in History and elementary education, PLU, 1998

ICTM Involvement and Activities: ICTM Elementary Teaching Award 2014

Other Professional Activities:

- Math teacher/leader (2011–present)
- Rural Access to Mathematics Professional Development (2008–2014) On-going participation in ISBE funded grant for math teachers. I am an active participant in ongoing grant opportunities including summer, weekend, and after school workshops. CGI instruction received through this opportunity has transformed my teaching in all subject areas.
 - Science Mathematics and Action Research for Teachers (SMART) (2008–2010) Selected for Cohort 1 of SMART- competitive program offered to advance level of mathematics and science education in Southern Illinois
 - School Improvement Committee (2007–present)
 - PBIS coach (2008–2010)
 - State Delegate to IEA and NEA Representative Assemblies (2014)

Affiliations: Member NCTM, ICTM, NSTA & ISTA

Honors:

- ICTM Elementary Teaching Award 2014
- Robert Noyce Teacher Fellow SIUC (2012–2016)
- HEART Gk–12 (2010–2011)

ICTM Director 9–12



Candidate Name: Jeremy Babel

Current Position:

Mathematics Department Chair,
Leyden High School District 212,
Franklin Park, IL 2007–2014

Past Experience:

- A.E. Stevenson High School
 - Mathematics Teacher, 2001–2007
 - Assessment Coordinator, 2005–2006
 - Math Team Coach 2001–2003
- West Chicago Community High School
 - High School Mathematics Teacher, 1999–2001
 - Math Team Coach, 1999–2001

Education:

- M.S. Educational Leadership, NEIU, 2005
- B.S. Mathematics Education, ISU, 1999

ICTM Involvement and Activities:

- Speaker 2002
- Member, and regular attendee at annual meeting

Other Professional Activities:

- Math Department Heads of the Western Chicago Suburbs (MDHWCS)
 - President, 2011–12
 - Steering Committee Member 2009–2014
- NCTM Regional Speaker, Oct 2014
- 1 to 1 Google Summit Speaker, June 2013
- Agile Mind Summit, Teacher demonstration, Panel Discussion Member, June 2014
- ISU Student Teacher Mock interviewer, 2013, 2014
- MMC Conference of Workshops Presenter, 2000

Affiliations:

- MDHWCS - Steering Committee Member, President
- ICTM
- NCTM



Candidate Name: Chad Shepherd

Current Position:

Math Department Chair, Pontiac Township
High School, Pontiac, IL 2008–Current

Past Experience:

- Mathematics Teacher, Maine South High School, Park Ridge, IL 1999–2008
- Mathematics Teacher, Normal

Community High School, Normal, IL 1995–1999

Education:

- Master of Science in Mathematics, Northeastern Illinois University 2008
- Bachelor of Arts in Mathematics, Illinois Wesleyan University 1995

ICTM:

- Member: 2013–Present
- Annual Conference attendee 2014

Other Professional Activities:

- Illinois State Board of Education Model Mathematics Curriculum Team Member (Math 3): 2013–Present
- NCTM Presenter (San Diego 2010, Indianapolis 2011, Philadelphia 2013)

Affiliations:

- National Council of Teachers of Mathematics: Member 2007–Present



In 1991 the Math Energy Club was established at Eastern Illinois University. In the fall of 1992, Math Energy became an affiliate group of Illinois Council of Teachers of Mathematics (ICTM) and received our affiliate group charter from the National Council of Teachers of Mathematics (NCTM) at the 1994 NCTM meeting at Indianapolis.

Math Energy is a pre-service teacher organization which meets monthly to give members the opportunity to attend presentations by various professionals speaking on math related topics in the field of education. Math Energy focuses on a hands-on approach to teaching math. All grade and ability levels are explored at our meetings.

Monthly meetings will be scheduled for Spring Semester. More information can be found on the Math Energy website:

<http://mathenergy.wordpress.com>

DESIGNING A QUAD

Group Task

Task: A University wants to construct a walkway system for the campus's Quad, which is a rectangle plot of grass with dimensions 600 feet by 800 feet. The University wants to keep as much grass as possible, so they don't want to add any more than 3000 linear feet of walkway. However, they also want the walkway to be efficient and useful to the students, while being aesthetically pleasing. As we all know, if the walkway isn't useful, students will simply cut across the grass, kill it, make mud, track it through buildings, increase cleaning expenses, and make the quad look bad.

The University determined that they want students to be able to travel from any point on the perimeter of the quad to any other point on the perimeter of the quad by walking less than 1200 feet using the walkway system. If they have to travel more than 1200 feet, the chances that they will cut through the grass increases dramatically. There is already a walkway on the perimeter, so the only thing the new walkway system has to add is what cuts through the grass.

What is the best design that fits these constraints? Design a solution and demonstrate how it satisfies the constraints by showing several "worst case scenarios."

Group Accountability: Each group must determine the best design that satisfies the constraints of the problem. Each group must also provide several "worst case" scenarios, under which the design still holds up to the constraints.

Individual Accountability: Each group member must have their own copy of the design, worst case scenarios, and describe in detail their group's strategy while providing a sound mathematical rationale.

Do You Know Someone Deserving of an ICTM Award?

Now is the time for you to get serious about nominating colleagues for the 2015 ICTM awards. The **nominations are due March 31**, and it takes a few days to gather the required information. ***So get on it!***

ICTM honors outstanding achievement every year in virtually every aspect of mathematics education. Nomination is reasonably straightforward and rather enjoyable and satisfying. The nominee is always pleased to know that colleagues value her or his efforts over the years, and the recipients of the awards have an opportunity to celebrate with friends and family as well as have their accomplishments appreciated by a larger audience than ever before.

There is an award for outstanding teaching at the elementary level, the middle school level, the high school level and post-secondary level. There is an award for professors who prepare teachers to teach, an award for educators who provide extraordinary leadership, and an award for educators who excel in providing extracurricular math opportunities. There is an award for a promising new teacher and an award for distinguished life achievement. Details can be found at <http://www.ictm.org/ictmawards/> as well as photographs and information about past recipients.

Teaching is difficult. One of the things that makes it difficult is that there is often little feedback for a job well done. Being nominated by a colleague for your outstanding work is one of the highest honors available in our profession, yet many deserving educators will not be recognized unless their colleagues take the time and make the effort to recognize them. Just do it, now.

Eric Bright, Awards Chair

ILLINOIS COUNCIL OF TEACHERS OF MATHEMATICS **SCHOLARSHIPS IN MATHEMATICS EDUCATION**

The ILLINOIS COUNCIL OF TEACHERS OF MATHEMATICS will be presenting its twenty-fourth annual Scholarships in Mathematics Education in October of 2015 at the ICTM Annual Meeting in Tinley Park on Oct. 23–24.

There will be a minimum of 2 and a maximum of 5 awards granted of **\$1500.00** to help defray educational expenses of the recipients.

To be eligible, a student must:

1. Be enrolled in an accredited university or college in Illinois during Spring 2015.
2. Have junior or senior status as of Spring 2015 with graduation during May 2015 or later and must be working on his/her first bachelor's degree.
3. Be a mathematics education major, a mathematics major with an education minor, or an education major with an official mathematics emphasis.
4. Have a total over all GPA of at least 3.00 from all colleges attended (based on 4.00).
5. Submit the following:
 - A. A completed ICTM scholarship application form.
 - B. Transcripts from ALL COLLEGES ATTENDED (these may be student copies).
 - C. Letters of recommendation from two mathematics teachers, high school or college. These letters must state the capacity in which the writer knew the applicant and address his/her potential as a mathematics teacher.
 - D. Two 200-300 word essays as requested below.
 - E. A complete lesson planning form which is attached.

Students can request application forms from their mathematics education department, download the application at <http://ictm.org/scholarship.html>, or write to:

Sue and Randy Pippen
ICTM Scholarship
24807 Winterberry Lane
Plainfield, IL 60585

Please enclose a self-addressed stamped business envelope with your request for application forms.

The completed application must be received by mail or email. They must be postmarked on or before **March 6, 2015**. The recipients of the scholarship awards will be announced in June 2015 and awarded at the ICTM Conference Awards Reception on October 23 in Tinley Park.



Computer algebra systems (CAS) have the potential to revolutionize mathematics education at the middle and secondary level. Experience how CAS can be integrated into Pre-algebra, Algebra 1 & 2, Precalculus, Calculus, and Geometry.

**Attend the 9th INTERNATIONAL Conference on CAS in Secondary Mathematics
Come explore the future of mathematics education!**

- Discover how secondary and middle school teachers are using CAS in their own classrooms.
- Get classroom tested ideas developed for CAS-enhanced classrooms.
- Interact with prominent CAS pioneers from the USA and internationally.

The 2015 Conference is dedicated to the memory of Bert Waits.

WHEN: Saturday, July 18, 2015 8:00 AM - 4:00 PM
Sunday, July 19, 2015 8:00 AM - 1:00 PM

WHERE: Hawken School
5000 Clubside Road
Lyndhurst, OH 44124 *(approximately 27 miles from CLE Airport)*

COST: Registration: **\$175 (before May 28, 2015)**
\$150/person for school/district teams of 2 or more (before May 28, 2015)
\$200 (on or after May 28, 2015)
\$60 for pre-service university students
(Fee includes continental breakfast, box lunch, and snacks)

**Optional Saturday evening tour to Rock and Roll Hall of Fame and dinner at
House of Blues—transportation is included: \$48**

HOTEL: Embassy Suites Cleveland-Beachwood: www.embassybeachwood.com
\$129/night conference rate available until June 29, 2015 or until sold out
(rate available for reservations July 16 to July 19 2015)
Book directly online through hotel link at <http://usacas.org>
1-800-317-1960 Mention group code "HSM" for conference rate

HOW: On-line registration, hotel information, and updates are available at <http://usacas.org>

For more information or questions, contact:

Ilene Hamilton at ihamilton2341@gmail.com

Chris Harrow at CDHarr@hawken.edu

Ray Klein at rklein9019@aol.com

Tom Reardon at tom@tomreardon.com

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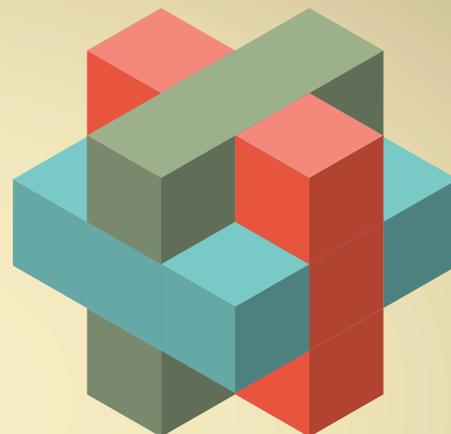
MEECAS

Organized by MEECAS (Mathematics Educators Exploring Computer Algebra Systems)

CONFERENCE CORNER

What's **MATH** Got to Do With It?

*Embracing Relevance and Meaning
in the Math Classroom*



Now is the time to plan for the 2015 ICTM Annual Conference! We are seeking more than 100 exceptional math educators who can provide content presentations at this fall's conference. Whether you are willing to give a presentation at the conference or simply want to attend for your own professional development, don't waste another minute! Don't miss the **February 21 deadline** to submit your presentation proposal, and start working now with your administration to ensure that you will be able to attend. We are planning another dynamic event in Tinley Park, with fresh and exciting updates to the conference schedule and an engaging speaker lineup. Submit your proposal, start making your travel plans, and stay tuned to www.ictm.org and your *ICTM Bulletin* newsletters for updates as they become available!

SUBMIT YOUR PROPOSAL!

*Submit your proposal to present at the 65th ICTM Annual Conference.
Online submission form available at
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Robert Mann
Mathematics Dept.
Western Illinois University
Macomb, IL 61455-1390
rr-mann@wiu.edu

Board Chair

Kara Leaman
613 CR 1500E
Tolono, IL 61880
idomath@comcast.net

Conference Director

Ann Hanson
Science/Math Dept.
Columbia College
600 S. Michigan
Chicago, IL 60605
ahanson@colum.edu

ICTM Bulletin Volume XXXVI
Issue 1

Directors: Anita Reid/Martin Funk

Submissions from:

Reports: Eric Bright
Martin Funk
Kara Leaman
Robert Mann
Randy & Sue Pippin

Activities: Zachary Herrmann
Jennie Winters

Conference Info: Bob Williams
Dave Wartowski

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Please note, the ICTM membership year ends on November 5, and memberships are not prorated. However, memberships purchased between April 1 and November 4 will be active for the full membership cycle purchased, PLUS a grace period between the date of purchase and November 5, the beginning of the next full membership cycle.

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ICTM Spring Regional Conferences:

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Western Illinois University, Macomb Friday, April 10, 2015
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NCSM Annual Conference

Boston, MA
April 13–15, 2015

NCTM 2015 Annual Meeting and Conference

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ICTM 2015 Math Contest

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ICTM Annual Conference

Tinley Park, IL
October 23–24, 2015

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