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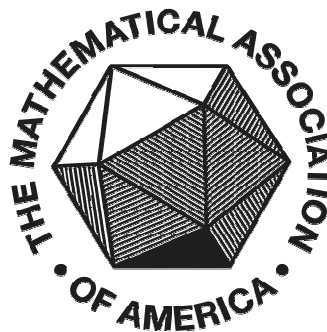
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Newsletter

Metropolitan New York Section of
The Mathematical Association of America

February 2009



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Bronx

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ANNUAL MEETING

Sunday, 3 May 2009

8:00 AM – 5:00 PM

Webb Institute

Glen Cove, NY

(More Information Contained Within)

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Vice-Chair for Two-Year Colleges (2006 – 2009)	Jerry G. Ianni LaGuardia Community College (CUNY)	(718) 482-5739 ianni@lagcc.cuny.edu
Vice-Chair for High Schools (2006 – 2009)	Chris Bergersen MacArthur High School	(516) 456-2016 cbergersen@levittown.k12.ny.us
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Math Fair Chair – Long Island	Joseph Quartararo Northport-East Northport Public Schools	(631) 584-2016 cmleague@optonline.net
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Liaison Coordinator and Webmaster	Raymond N. Greenwell Hofstra University	(516) 463-5573 matrng@hofstra.edu

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Section Web Page – www.maa.org/metrony

Contact Raymond N. Greenwell at matrng@hofstra.edu if you wish to add some interesting or useful information to the section web site. The section gratefully thanks Ray for maintaining the site over the past few years!

National Web Page – www.maa.org (both sites are linked to each other)

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Metropolitan New York Section of the MAA



Membership Count: 1046 as of January 16, 2009

MESSAGE FROM THE SECTION CHAIR

Hello Section members! I hope this newsletter finds you well. This is my third and final year serving as chair for the Section. As such, let me take the opportunity that this message affords to express my gratitude at having had the chance to serve in this capacity. It has been my great pleasure to work with my fellow officers in developing and executing Section programming. As you are probably aware, all Section officers are volunteers who receive no compensation for their efforts and perform their duties on top of their institutional teaching and research responsibilities. Nevertheless, I have found my fellow officers to be extremely generous in offering their time and energy for the cause. I cannot acknowledge all of their individual and collective efforts here, but I hope you will join me in expressing gratitude to them for work well done.

Farley Mawyer of York College, who has a long history of service to the organization, will become the Section's new chair. I have every confidence that he will serve the Section with considerable resourcefulness and competence. Election ballots for other office positions are being distributed to every member via snail mail. Ballots must be received by April 1. Results will be announced at the spring meeting.

Speaking of the spring meeting, this year's gathering promises once again to be a very enjoyable and informative experience. Our featured speakers, Edward Burger of Williams College and George Andrews of Penn State, are well known for presenting outstanding talks. We are thrilled that they will be joining us. In addition author and MAA Director of Publications Ivars Peterson will run a workshop on communicating mathematics. If interested in the workshop, make sure to register in advance. Further, Janet Barnett of Colorado State University will be joining us to share her experiences using primary historical source materials in the classroom. As always, the meeting will be rounded out with contributed paper presentations, a poster session, book vendors, an awards ceremony, a math-art exhibit, plenty of food and drink, and plenty of time to meet new colleagues and rekindle old friendships. Look in this newsletter for detailed information on the spring meeting including registration, events schedule, transportation options and parking.

Did you know that students represent about 40% of all attendees at Section meetings across the country? We certainly have not had that rate of student participation at our meetings in the recent past, but you may have noticed a growing number of students attending our meeting over the past few years. Indeed, there has been an increase in student participation at all levels (high school, undergraduate and graduate). We are happy with this trend and want to encourage even more students to attend our meeting this year. Towards that end, we will be sponsoring a math game/quiz show for students this year. Details of this exciting event are discussed inside this newsletter.

All in all, it promises to be an exciting meeting once again this year. I look forward to seeing you there!

Dan King
Sarah Lawrence College

MESSAGE FROM THE SECTION CHAIR-ELECT

Is it my turn already? Has it really been three years since I was elected to be the Chair-Elect of our section? I was recently looking at the history page for the Metro NY Section and was awed by many of my predecessors. Beginning with T. Freeman Cope in 1941 and continuing with Bennington Gill, Mina Rees and Mary Dolciani to name but a few. When I first became active in the section the chairperson was Warren Page who, as you can see on our web page, won a well-deserved service award from the section last year.

Back in the beginning of our section a tradition of having exciting and interesting meetings was born. I'm happy to report that that tradition continues to this day. As you see in a different part of this newsletter our first speaker will be George Andrews who will speak on, not surprisingly, Ramanujan. And that is just the beginning. Several excellent presentations will follow culminating with a workshop by Ivars Peterson, the director of publications for the MAA.

Am I nervous about starting my new term as chairperson? Well, somewhat. But, I know with the help of the fine officers I have known all these years the section will continue to be vibrant. See you at the meeting!

Farley Mawyer
York College (CUNY)

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MESSAGE FROM THE SECTION GOVERNOR

The meeting of the Board of Governors (BoG) took place in Washington, D.C. on Sunday, January 4. It provided a unique opportunity to observe our Association at work and discuss its activities. Even though the governors are not at every committee and subcommittee meeting, the results of these groups' deliberations are reported to us for our understanding and, usually, for our approval. There is an opportunity to raise issues and question any policy whose purpose or effectiveness is not clear. For example, at this January 4 meeting, there was quite a discussion of the criteria for meeting sites and whether certain venues might discourage attendance because of various political or social issues. The Executive Committee acknowledged the concerns voiced by those in attendance and promised to take them into consideration.

The MAA Treasurer, John Kenelly, continues to report that although the Association has felt the effect of the economic downturn, we have "deep pockets" and sound financial management that have made our losses less than average. In his role as Chair of the Investment Committee, John commented that "holding cash, asset allocation, and diversity has served us well." (See <http://www.maa.org/pubs/october08web.pdf>, pp. 6-7 for information on obtaining MAA financial data.)

Some brief revelations: MAA membership is approximately 25% female; across all sections, about 50% of section meeting participants are students; the theme of Mathematics Awareness Month will be "Mathematics and Climate Change" in 2009 and "Mathematics and Sports" in 2010. *Focus*, the newsletter of the MAA, will come out in six issues, not the usual nine, in 2009. However, readers will see a redesigned periodical with an increased page count.

At the BoG meeting, there were break-out sessions to discuss MAA periodicals. Governors were asked to assess the variety and quality of these publications and what combination of print and electronic forms would be most attractive to subscribers. We also discussed whether there should be additional periodicals devoted to mathematics education at the college level and to undergraduate research. The Council on Publications will consider these discussions and the survey forms submitted and report back to the BoG.

(continued)

I attended my first meeting of the Committee on the Profession on January 5. One of our goals is a revision of the document *Guidelines for Programs and Departments in Undergraduate Mathematical Sciences* (February 2003). Even though the MAA is not an accrediting organization, its recommendations on staffing, resources, curriculum, promotion, tenure, etc. can be helpful in dealing with the evaluation of undergraduate mathematics programs by college or university administrators. One of the committee members communicated this URL, which should interest all of us: <http://online.wsj.com/article/SB123119236117055127.html>.

Over 5000 attendees invaded Washington for the Joint Mathematics Meetings January 5-8, a record-breaking number boosted by the presence of many people from our Section. One former section officer even brought his brother-in-law! A good number of our section members gave presentations. There is something for everyone at these meetings. The MAA, AMS, SIAM, and organizations such as AWM and NAM collaborate to present a rich stew of mathematical delights. You can hear technical treatments or expository talks by Big Names in the profession, attend panel discussions and mini-courses, interview for an academic position, and hear mathematical poetry recited. This meeting had sessions on mathematics and music, the mathematics of sports, and mathematical aspects of the fabric arts (knitting, crocheting, etc.) As usual the Exhibition Hall was a popular feature. In addition to publishers' booths and technological vendor demonstrations, there was a special exhibit of mathematical art. For the first time, prizes were awarded to the top three art works shown at the meeting. Check the MAA website for details.

I look forward to seeing you on Sunday, May 3 for our annual Spring Meeting.

Henry Ricardo
Medgar Evers College (CUNY)

TREASURER'S REPORT

(as of 12/31/08)

Business Checking	\$ 10,437.93
Business Money Market	\$ 3,267.40
6-Month Business CD	\$ 32,463.27
Total	
	\$ 46,168.60

All accounts are with J.P. Morgan Chase Bank. Further details will be provided at the annual meeting.

Mohammad Javadi
Nassau Community College (SUNY)

25 and 50 Year Members

The following members will be recognized during the Awards Ceremony at our May meeting. The 25 year members are offered free registration, and the 50 year members free registration and lunch (who said there's no such thing as a *free lunch*?!!). ☺

25 Years: Karen K. Auh (St. Joseph's College – Brooklyn), Ethan J. Akin (City College – CUNY), Florence S. Gordon (New York Institute of Technology), Steven J. Kahan, Irwin Kra (SUNY – Stony Brook), Rosemary Reichhold, Hyman Rosen, Evanthia Basias (Hunter College High School).

50 Years: Ruth S. Lefkowitz (John Jay College – CUNY), Jane Matthews (Hunter College – CUNY), Herbert Ruderfer (Westchester Community College – SUNY), Ida A. Sussman.

2009 SPRING MEETING PROGRAM (Preliminary) Sunday, May 3 • Webb Institute, Glen Cove, NY

8:00 – 9:00 AM	Registration and Refreshments Book Exhibits Open (continuing until 3:30 PM)
9:00 – 9:15 AM	Welcoming Remarks: Roger H. Compton, Dean of Webb Institute Dan King, MAA Metropolitan New York Section Chair
9:15 – 10:15 AM	Invited Speaker: <i>Ramanujan, the Lost Notebook, and Related Incidents</i> ¹ George E. Andrews, The Pennsylvania State University
10:15 – 10:30 AM	Break - coffee and refreshments
10:30 – 11:30 AM	Invited Speaker: <i>How Always to Win at Limbo, or You can sum some of the series some of the time, and some of the series none of the time... but can you sum some of the series ALL of the time?</i> ² Edward B. Burger, Williams College
11:30 – 12:15 PM	Awards Ceremony - including Prize Raffle with some Sectional Business
12:15 – 1:15 PM	Lunch (with time to visit the exhibits)
1:30 – 3:30 PM	Contributed Paper and Poster Sessions
2:00 – 5:00 PM	Math-Art Exhibit ³ , Curator Anne Burns
2:30 – 3:30 PM	Break - coffee and refreshments
3:30 – 4:30 PM	Guest Presentation: <i>Straight from the Source's Mouth: Teaching Discrete Mathematics via Primary Historical Sources</i> ⁴ (with time for Q&A) Janet H. Barnett, Colorado State University
3:30 – 5:00 PM	Special Presentation: <i>Math Jeopardy</i> (for students) Emcees: Abe Mantell, Henry Ricardo, and David Seppala-Holtzman
3:30 – 5:30 PM	Workshop: <i>Communicating Mathematics</i> ⁵ Ivars Peterson, Director of Publications, MAA

¹ See page 9 for Abstract and brief Bio of George E. Andrews

² See page 9 for Abstract and brief Bio of Edward B. Burger

³ See page 8 for more about the *Math-Art Exhibit*

⁴ See page 10 for Abstract and brief Bio of Janet H. Barnett

⁵ See pages 10 and 11 for Abstract and brief Bio of Ivars Peterson

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Call For Abstracts: General Contributed Paper and Poster Sessions

The Metropolitan New York Section of the MAA is soliciting abstracts for the *Contributed Paper and Poster Sessions* of its 2009 Spring Meeting to be held on Sunday, May 3 at The Webb Institute (Glen Cove, NY, on Long Island Sound in Nassau County, 2 miles from Glenn St station of LIRR). All interested professionals and students are encouraged to submit an abstract. The Contributed Paper Sessions will feature presentations on mathematical research as well as mathematics education. We will also once again have a *Poster Session* at our meeting.

As always, high school and college students are especially encouraged to submit an abstract discussing their experience with mathematical research. Student presenters will continue to have their meeting registration and luncheon fees waived. Teachers, please encourage your students to present!

Paper presentations will be of fifteen minutes in duration followed by a five minute question and answer period. All presenters will be recognized in the final program of the Spring Meeting. Submissions on history and pedagogy as well as discrete mathematics are especially encouraged.

(continued)

In addition to title and abstract (not to exceed 300 words), all proposals should include

1. Category of presenter (student or nonstudent)
2. Name(s) of author(s) and presenter(s) with institution(s) (if any)
3. e-mail address
4. Any special equipment needs
5. Presentation preference (poster or presentation)
6. (for high school and college student presenters) Name/email of mathematics teacher or advisor

Prepare your proposal as a single file, either in plain text or MS Word format. For file name, use "firstname_lastname_abstract" then ".doc" or ".txt". Please submit proposals electronically as an attachment to Laurie Caban <LCaban@citytech.cuny.edu>. Use as subject line "MAA meeting abstract". Proposals submitted by Friday, April 3 will receive full consideration. A committee of reviewers will examine all abstracts. The outcome of their deliberations will be announced by mid-April. Unless otherwise indicated, it will be assumed that anyone not selected for a presentation will be willing to do a poster.

For additional information regarding the *Contributed Paper and Poster Sessions* of the 2009 Spring Meeting, contact Ezra Halleck <EHalleck@citytech.cuny.edu>.

Call For Art-Work: Math-Art Show Exhibit

Visual Mathematics has become a very popular subject in contemporary mathematics. This year we are planning the second annual exhibit of mathematically inspired art: *Mathematical Art Poster Session* at the May 3rd Metro NY MAA Meeting. Some examples are computer generated visualization of mathematics, fractals, tessellations, geometric art, etc. We welcome student math-artworks. To see a wide variety of such art from past exhibits such as the annual Math-Art Exhibitions at the Joint Mathematical Meetings see the exhibit web pages at: <http://bridgesmathart.org/bridges-galleries/art-exhibits/>

Another source is the Math Imagery site of the AMS: <http://www.ams.org/mathimagery/>.

If you would like to exhibit your art in this poster session, please send jpg files of up to 5 of your artworks to Anne Burns at: aburns@liu.edu.

The files should be in jpg format, no more than 600 pixels in the maximum dimension (length or width). The actual artworks may be larger. Please name the files with your last name, for example smith1.jpg, smith2.jpg, etc. In the email containing your files please send the following information: your name, your affiliation (i.e. name of school/college/university/industry), your e-mail address. For each artwork, please include: name of artwork, dimensions of artwork, year of completion, and a brief description of artwork.

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Our Section's brick at the Carriage House, MAA HQ in Washington, D.C. Thanks to Henry Ricardo for taking this photo at last month's joint meeting.

Presentation Abstracts and Speaker Biographies

Ramanujan, the Lost Notebook, and Related Incidents

George E. Andrews, The Pennsylvania State University

Abstract:

In 1976 quite by accident, I stumbled across a collection of about 100 sheets of mathematics in Ramanujan's handwriting; they were stored in a box in the Trinity College Library in Cambridge. I titled this collection "Ramanujan's Lost Notebook" to distinguish it from the famous notebooks that he had prepared earlier in his life. On and off for the past 33 years, I have studied these wild and confusing pages. Some of the weirder results have yielded entirely new lines of research. I will try to provide a gentle account of where these efforts have led. I will conclude with a couple of stories about associated TV and film projects that arose because of this discovery.

Speaker Biography:

George E. Andrews is Evan Pugh Professor of Mathematics at Penn State and an elected member of the National Academy of Science. He lists 264 research articles. While his interests center on partition theory, he has pursued this topic in many different directions, establishing ties to number theory and asymptotic analysis, to special functions and q-hypergeometric series, to statistical mechanics and the study of exactly solved models, to representation theory and its generating functions, to computer algebra systems and automated methods of finding and proving series identities and transformation formulas. He is known as the person who discovered Ramanujan's "lost notebook," and he is one of the leading Ramanujan scholars today. He has published twelve articles in the *American Mathematical Monthly*, and frequently speaks to a wide range of audiences.

How Always to Win at Limbo, or You can sum some of the series some of the time, and some of the series none of the time... but can you sum some of the series ALL of the time?

Edward B. Burger, Williams College

Abstract:

Remember in your days of first-love how you would dream about that special someone and wonder to yourself: "How close are we?" This presentation will answer that question by answering: What does it mean for two things to be close to one another? We'll take a strange look at infinite series, dare to mention a calculus student's fantasy, and momentarily engage in transcendental meditation. In fact, we'll even attempt to build some very exotic series that can be used if you ever have to flee the country in a hurry: we'll either succeed or fail... you'll have to come to the lecture to find out. Will you be at the edge of your seats? Perhaps; but if not, then you'll probably fall asleep and either way, after the talk, you'll feel refreshed. No matter what, you'll learn a sneaky way to always win at Limbo. This presentation is open to all math fans--young and old alike. A familiarity with infinite series is helpful. If you've ever heard of the words "triangle inequality," then this is the address for you!

Speaker Biography:

Edward Burger is Professor of Mathematics at Williams College. His research interests are in number theory, and he is the author of over 30 research articles and 12 books including *The Heart of Mathematics: An Invitation to Effective Thinking* (winner of a 2001 Robert W. Hamilton Book Award). Burger was awarded the 2000 Northeastern Section of the MAA Award for Distinguished Teaching and 2001 MAA Deborah and Franklin Tepper Haimo National Award for Distinguished Teaching of Mathematics. The MAA named him the 2001-2003 Polya Lecturer. In 2002-2003 he was the Ulam Visiting Professor at the University of Colorado at Boulder, where he was awarded the 2003 Residence Life Teaching Award. In 2004 he was awarded Mathematical Association of America's Chauvenet Prize and in 2006 he was a recipient of the Lester R. Ford Prize. In 2007 and 2008 he received two awards for his video work. In 2007 Williams College awarded him the Nelson Bushnell Prize for Scholarship and Teaching and this year the College named him the Gaudino Scholar. Burger is an associate editor of the *American Mathematical Monthly* and a trustee of the Educational Advancement Foundation. In 2006, *Reader's Digest* listed Burger in their annual "100 Best of America" as America's Best Math Teacher. (continued)

***Straight from the Source's Mouth:
Teaching Discrete Mathematics via Primary Historical Sources***

Janet H. Barnett, Colorado State University

Abstract:

As mathematics instructors, it is natural for us to try to provide students with clear and precise presentations, both in our teaching and in the textbooks we select. But just as water filtration, intended to remove impurities, can remove healthy minerals and interesting tastes, efforts to remove potential impediments to learning can strip a subject of its context, motivation and direction. One means of restoring these ingredients is to go back to the source from which the subject originally sprang. This talk describes student projects based on this idea which focus on topics in discrete mathematics. Designed to capture the spark of discovery and motivate subsequent lines of inquiry, each project is built around excerpts from primary sources close to or representing the discovery of a key concept. Through guided reading and activities, students explore the mathematics of the original discovery and develop their own understanding of the subject. To place the source in context, a project also provides biographical information about its author, and historical background about the problem with which the author was concerned. In addition to an overview of how these projects can be used and the rationale for their use, participants will be provided an opportunity to examine several of the 20+ projects developed to date by a team of mathematicians and computer scientists at Colorado State University–Pueblo and New Mexico State University, with support from the NSF. Original source authors represented in these projects include Archimedes, Boole, Cantor, Euler, Leibniz, Pascal, Turing, Veblen, and von Neumann, writing on topics such as mathematical induction, logic, finite sums of powers, graph theory, transfinite arithmetic, binary arithmetic, Boolean algebra, combinatorics, computability, and decidability. All projects are available at www.math.nmsu.edu/hist_projects/discrete-projects.pdf, along with further details about our pedagogical approach.

Speaker Biography:

Janet Heine Barnett holds a B.S. in Mathematics and Humanities from Colorado State University - Fort Collins, and an M.A. and Ph. D in Set Theory from the University of Colorado - Boulder. She is a Professor of Mathematics at the Colorado State University - Pueblo where she has taught since 1990. In 2006, she was awarded the University Award for Excellence in Teaching. Her teaching experience also includes two years as a Peace Corps volunteer in the Central African Republic. A 1995 -1996 fellow at the *MAA Institute for History of Mathematics and Its Use in Teaching* (funded by the NSF), her scholarly interests have long included mathematics history and its use both to promote mathematical understanding and as a vehicle for promoting teacher reflection on pedagogical issues. In addition to her current collaboration with faculty at New Mexico State University in the development of original source projects for the teaching of discrete mathematics, recent projects have included a study of the historical relation of mathematics and war, a history of the hyperbolic functions in the eighteenth century, and the mathematical history of Paris (jointly with her dance & travel partner/husband George Heine). An active member of the MAA since 1989, she was awarded the Rocky Mountain Section Certificate of Meritorious Service in 2007.

Communicating Mathematics (Workshop)

Ivars Peterson, Director of Publications, MAA

Abstract:

The importance of communicating mathematics clearly and effectively is evident in the many ways in which mathematicians must write, whether to produce technical reports, expository articles, book reviews, essays, referee's reports, grant proposals, research papers, evaluations, or slides for oral presentations. With a focus on exposition, this workshop offers tips for improving writing skills, from grammar and usage to organization and manuscript or slide preparation. It also provides insights into how news media cover mathematics and science and suggests how participants can contribute to the public understanding of mathematics. Workshop bibliography is available at <http://ivarspeterson.googlepages.com/workshop1>.

(continued)

Speaker Biography:

Ivars Peterson is Director of Publications for Journals and Communications at the Mathematical Association of America in Washington, D.C. For more than 25 years previously, he was a writer at *Science News*. He also served as editor of *Science News for Kids* and *Science News Online* and wrote the weekly online column *Ivars Peterson's MathTrek*. Ivars Peterson received his education from the University of Toronto, where he earned a Bachelor of Science degree (majoring in physics and chemistry) and a Bachelor of Education degree. He taught high school science and mathematics for eight years. In 1980, he left teaching to obtain a master's degree in journalism from the University of Missouri in Columbia. He served as an intern at *Science News* in Washington, D. C., then joined the weekly magazine's staff. Peterson has written several books including *The Mathematical Tourist: Snapshots of Modern Mathematics*, *The Jungles of Randomness: A Mathematical Safari* and *Mathematical Treks: From Surreal Numbers to Magic Circles*. In 1991, Ivars Peterson received the Joint Policy Board for Mathematics Communications Award recognizing him for his "exceptional ability and sustained effort in communicating mathematics to a general audience." During the spring semester of 2008, Ivars Peterson served as the Basler Chair of Excellence for the Integration of the Arts, Rhetoric, and Science at East Tennessee State University in Johnson City, where he taught a course on "Communicating Mathematics." He lives in Washington, D.C., with his family.

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Directions to:

Webb Institute
298 Crescent Beach Road
Glen Cove, NY 11542

By Car:

On Long Island Expressway, take Exit 39. You are traveling north on Guinea Woods Road, which changes to Glen Cove Road as you proceed north. As you approach Glen Cove, Route 107 joins Glen Cove Road and the road is so marked the remainder of its length. When you get to the end, a fire house will be directly across the street.

Turn right onto Brewster Street and proceed through three traffic lights. At the fourth light, turn left onto Dosoris Lane.

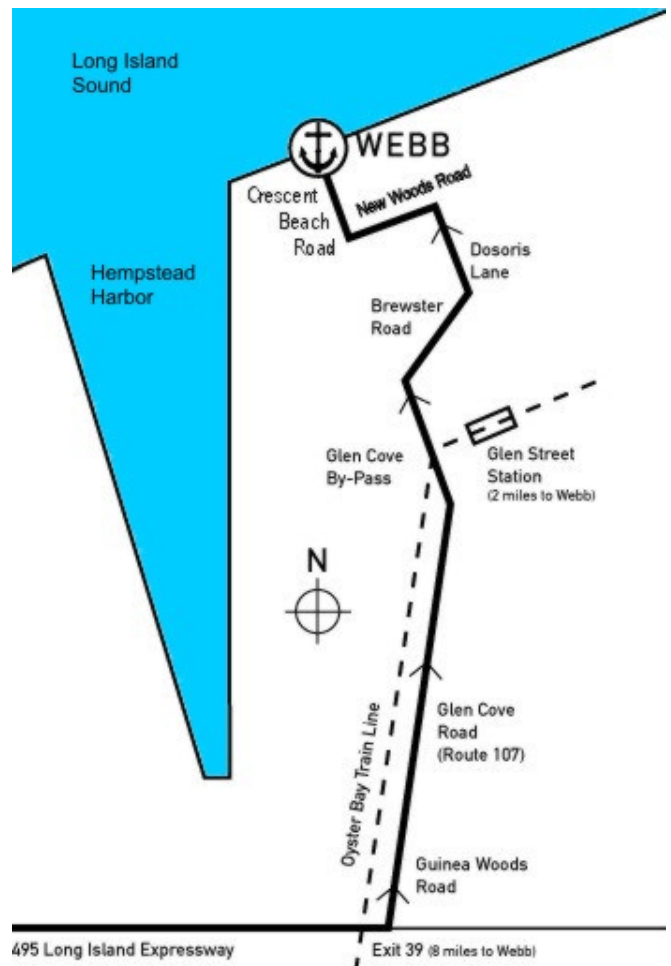
Follow Dosoris Lane for about a mile to New Woods Road, which intersects Dosoris Lane at the left only. Turn left onto New Woods Road and follow to the end.

Turn right onto Crescent Beach Road, which will lead you to Webb's main entrance.

By Train:

The closest Long Island Rail Road (LIRR) station is Glen Street (2 miles from Webb). For the latest schedule, check:

<http://www.lirr.org/lirr/html/ttn/glenstre.htm>.



2009 SECTION MEETING REGISTRATION FORM

(*** PLEASE PRINT ***)

First Name: _____ M.I.: _____ Last Name: _____

Badge Name or Nickname: _____ Affiliation: _____

Address: _____

City: _____ State: _____ Zip+4: _____ - _____

Phone Number: Day: (____) _____ E-mail: _____

Special diet? (circle one) Yes / No. Please specify: _____

Any other special needs? (wheelchair access, etc. – please specify) _____

The MAA national office requests the following information. Please check the appropriate responses.

Current MAA Member: Yes No First Metro NY Section Meeting? Yes No

Faculty members at a college or university, please check the highest mathematics degree offered by your current institution: Associate Bachelors Masters Doctorate None

Current employment/student status (check all that apply):

- High School Student Undergraduate Student Graduate Student
 High School Teacher College/University Professor Business, Industry, Government Employee
 Retired (from?) _____ Other (please specify) _____

I wish to participate in Ivars Peterson's Workshop *Communicating Mathematics* (3:30-5:30): Yes No

2.3025850929940456840179914546843642076011014886287729760333279009675726096773524802359972050895982983419677840422862486334095254650828067566662873690987816894829072083255546808437998948262331985283935

Please place an 'X' in each appropriate slot.

Registration Fee*: On/Before 13 April \$10.00 _____
(Postmarked) After 13 April \$15.00 _____
Student Registration \$ 5.00 _____

- * Registration and lunch fees waived for:
• students presenting papers or posters
• 50-Year Members (see page 6)

Luncheon*? (circle one) Yes / No \$15.00 _____

- * Registration fee waived for:
• 25-Year Members (see page 6)

TOTAL: _____
=====

Important Note: On-site registration will be available (at the higher registration fee), but all members are encouraged to pre-register by mail as early as possible. Registration forms received on or after April 27 will not be processed in advance of the meeting. Luncheons are not guaranteed for attendees registering on-site.

0.20787957635076190854695561983497877003387784163176960807513588305541987728548213978860027786542603534052177330723502180819061973037466398699991126317864120573171777952006743376649542246381929737430538

Mail completed form with payment payable to *The MAA* (do not send cash) to:
Dan King
Department of Mathematics
Sarah Lawrence College
1 Mead Way
Bronxville, NY 10708

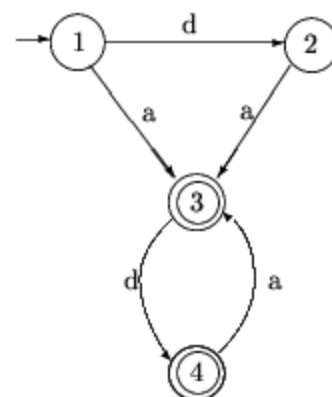
(Registration forms will be acknowledged via e-mail.)

FEATURED ARTICLES

An Application Of Regular Languages in Validating Email Formats

Parisa Babaali, York College, CUNY

A regular expression or a regular language is a set of strings formed from a set of finite alphabet, via iterated applications of the operations: finite union +, concatenation, and generation of the sub monoid *. For example the word "dada" is a word in the regular expressions $(a+da)(da)^*$ with the alphabet set $\{a,d\}$. A computer detects a regular language by forming a finite state automaton and checking if the given word will be accepted by this automaton. An automaton is a directed graph where edges are labeled by letters and there is a fixed starting node and final node. An example of an automaton on the alphabet $\{a,d\}$ is illustrated in the accompanying diagram.



The discussion on how to form an automaton from a regular expression is out of the scope of this article but can be found at any basic book on *Automata Theory* such as [HU].

Our first task of validation demonstrates a primary function of regular expressions: abstracting strings of varying levels of complexity. This means that regular expressions give the programmer, a way to describe a string in general terms, which require minimum code, but handle every case the application will encounter. For example an email address would be described as: "A nonempty string of letters and numbers followed by @ followed by a non empty string of letters and numbers followed by a "." followed by a nonempty string of letters and numbers."

An easy regular expression to detect an email address will look like:

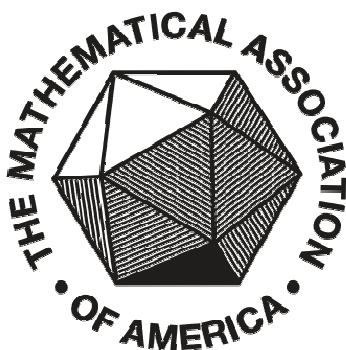
```
"^\\w+([-+.]\\w)*@\\w+([-.]\\w)*\\.\\w+([-.]\\w)*$"
```

Here our original definition with the relevant parts of the regular expression is shown alongside (in parenthesis). The email's first character must be a letter or a number, the carrot (^) means the beginning of the string and the square brackets tell the regular Expression to match one character from any of the group of characters inside), it must contain @ and at least one "." and no characters other than letters, numbers and the underscore may be used (\\w) and the dollar (\$) means the end of the string.

Similarly regular expressions can be used for: parsing text data files into sections for import into a database, finding and replacing values in text to clean, reformat, or change content, processing natural languages, and many more applications. Finite state automata also are used in different mathematical fields. They are used extensively in combinatorics for counting purposes, in group theory to study more complicated groups such as automatic groups and automata groups.

Reference:

[HU] J . Hopcroft and J. Ullman. *Introduction to Automata Theory, Languages and Computation*. Addison-Wesley, 1979.



Mathematics and the Media

Elana Epstein, St. Joseph's College

I've heard that there are really students out there who don't love mathematics. As difficult as it is for me to believe this, I've heard it often enough that I have to believe it's true. I have tried to think of ways to lure these people into the world of mathematics.

One lure is that many students watch movies and television programs which contain mathematical references. For example, in *The Da Vinci Code* the main character, Robert Langdon, is asked by the French police to look at the crime scene where the curator of the Louvre has died. There is a secret message written in invisible ink near him. It reads:

13 – 3 – 2 – 21 – 1 – 1 – 8 – 5
O, Draconian devil!
Oh, lame saint!

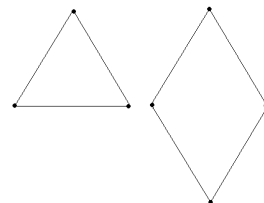
Recognize these numbers? Langdon realizes that they are the Fibonacci numbers, but in a mixed up order. At first the message makes no sense, but since he knows the numbers are out of order, he rearranges the letters to obtain: *Leonardo Da Vinci the Mona Lisa*.

There is another example from the same film. Sophie, the other main character, describes how many permutations are possible on a cryptex. You can have your students do calculations to show how she got 11,881,376 (i.e. $26 \times 26 \times 26 \times 26 \times 26$).

Mathematics is in lots of other media. In an episode of the television show *Monk* there are two victims that have the same first and last names. How likely is this coincidence? This can lead to a discussion of the birthday problem: How many people are required in order to have a better than even chance that two or more of them have the same birthday? It can also lead to The Monty Hall problem: On a game show there are three doors. Behind one is a car, the others have goats. You pick a door and the host, who know what's behind the doors, opens another door which has a goat. Should you switch? The Monty Hall problem was used in the movie *21* by a math professor who posed it to his class to find the smartest students so he can recruit them to count cards in blackjack. You can also have students read the New York Times article about this problem. The question appeared in the *Ask Marilyn* column of Parade magazine. Marilyn answered that you should switch doors and she received a lot of letters saying that this was wrong. Some letters were even from mathematics professors. It turns out that she was right. This shows students that probability is sometimes counterintuitive, even to professors.

In the movie *Castaway* the lead character, Chuck, tries to figure out how many miles people would have to search to rescue him after his plane crashes. He estimates the distance from where the plane was supposed to be and where it actually ended up. He multiplied this radius squared by pi and ended up with the area of the circle that would need to be searched in order to locate him. A number was needed for a scene in the television show *Futurama*. The writers chose 1729 because it is the smallest integer which can be expressed in two different ways as the sum of two cubes (of positive integers): $1^3 + 12^3 = 1 + 1728$ and $9^3 + 10^3 = 729 + 1000$. From then on whenever a number was needed the *Futurama* writers used sums of two cubes.

In the movie *Death and the Compass*, based on the short story by Jorge Luis Borges, three murders occur at locations that form an equilateral triangle. Contrary to the opinion of the rest of the police force, the Inspector predicts a fourth murder will occur, forming a rhombus.



This idea of using math in crime solving is very popular in television shows such as *Numb3rs*, *Law and Order*, and *CSI*.

In the movie *Matilda*, the main character Matilda can add and multiply numbers in her head very fast. Have students think about how she is able to do this.

(continued)

In *Die Hard: With A Vengeance*, the characters played by Bruce Willis and Samuel L. Jackson go on a hunt to capture a criminal by solving riddles. In one scene they have to use a five gallon jug and a three gallon jug to measure exactly four gallons of water. During class you could show a clip from this movie. First show the part where the riddle is explained and the rules are set, then pause it and have your students work out the solution. Once they have worked on the problem and it has been discussed, then show the remainder of the clip where the characters solve it.

In an episode of the television show *30 Rock*, television star Tracy discovers that a member of his entourage named Grizz can beat the NBC page Kenneth at the video game Halo. Tracy uses the transitive property to deduce that Grizz is letting him win on purpose. He says, "If Kenneth could beat me, and you could beat Kenneth, then by the transitive property, you should beat me too!"

Yes, I have tried to think of ways to lure students into the world of mathematics. But then they came to realize that they already live in that world.

1.7320508075688772935274463415058723669428052538103806280558069794519330169088000370811461867572485756756261414154067030299699450949989524788116555120943736485280932319023055820679748201010846749232650

NEWS FROM OUR SECTION

The New York Math Circle

Japheth Wood, Bard College

Math Circles have been popping up around the country. Loosely described, they are enrichment activities that bring together students, mathematicians and math teachers. The MAA is currently leading an effort to organize this grassroots movement at the national level. In New York City, the New York Math Circle (NYMC) has recently completed its first year of activity. The circle has offered activities for high school and middle school students, and enrichment courses for high school teachers.

During the summer of 2008, the NYMC sent a team to MAA headquarters in Washington DC for a workshop cosponsored by the MAA and the American Institute of Mathematics (AIM) with the goal of starting a math circle for middle school math teachers. The New York Math Circle is looking for guest speakers. If you are interested in speaking with middle or high school students or math teachers, please write to: info@nymathcircle.org. NYMC is also seeking motivated students and teachers who could benefit from these activities. Please help us spread the word!

For further information, visit:

New York Math Circle: www.nymathcircle.org

Math Teachers' Circle Network: www.mathteacherscircle.org

National Association of Math Circles: www.mathcircles.org



CRAFTY at SUNY – Farmingdale

Sheldon Gordon, Farmingdale State College (SUNY)

Farmingdale State College recently organized and ran, on behalf of CRAFTY, the MAA's committee on Curriculum Renewal Across the First Two Years, a special invited conference on Mathematics and Economics. This workshop brought together 15 leading economics educators from around the country to develop a set of recommendations to the national mathematics community on the current mathematical needs of the one million students who take economics and related courses each year. The results of these discussions will be distributed by the MAA to each of the 4000 mathematics departments in the country to prompt the development of new courses and programs that will better serve the needs of economics students in an increasingly quantitative world.

The Farmingdale State workshop on economics is part of CRAFTY's Curriculum Foundations Project, an effort to determine the mathematical needs of many different disciplines to align college-level math courses across the country with how mathematics is actually used in all those fields. In particular, economics, finance and business related professions are becoming increasingly mathematical, and undergraduates majoring in these disciplines need a deeper as well as a different kind of mathematical preparation than has been the case historically.

(continued)

According to the economists at the workshop, their students need much more emphasis on understanding fundamental mathematical concepts than on developing a broad collection of algebraic skills. They also need to see realistic applications in their math classes that mirror the way that the math is used in business and economics classes. The economists welcomed the invitation to communicate these needs to the broad mathematics community, so that they will be able to produce graduates who are better equipped to function effectively both in modern economics programs in college and in careers that are a part of an expanding global economy.

The Curriculum Foundations workshop at Farmingdale State was co-chaired by Dr. Sheldon Gordon and Dr. Richard Vogel, chairman of the Farmingdale State Economics Department. It was also attended by several leading mathematics educators, including Deb Hughes-Hallett of Harvard University and the University of Arizona, Alan Tucker, Warren Page, and Jack Winn, to provide the economists with some background on the current status of mathematics education.

On the economics side, the workshop was actively supported by the American Economics Association (AEA) as a unique opportunity to influence the mathematics curriculum across the country. The Secretary of the AEA and the current and past chairs of its Committee on Economics Education participated in the workshop.

The workshop was held at Farmingdale State in conjunction with the College's launching its new baccalaureate program in Applied Economics. The final draft of the workshop report and other details on the conference can be found at: <http://snyfarvc.cc.farmingdale.edu/~gordonsp/CurrentProjects/CFWorkshop.html>.



A Mathematics Department in "Numberland"

Lucio Prado, Assistant Professor, Mathematics Department, BMCC (CUNY)

The New Year for the BMCC's Math Department started with a nice trip to Washington, DC to participate in the 2009 Joint Mathematics Meetings. As a department of a two-year college, the challenge is to create an atmosphere for producing research in the mainstream of mathematical sciences and mathematics education. Of course, this is actually quite hard in an academic environment at a two-year college, frequently dealing with teaching matters, introductory courses, heavy class loads, and a wide spectrum of students abilities, just to mention a few. To help combat these difficulties, money for travelling, use of Union-released class time for new hired professors, and students' research projects (STEM) are very helpful. As a consequence, several of our faculty have systematically participated in national mathematics conferences over the years. In DC, our faculty presented research on how to discriminate graphs of 3rd degree polynomial functions; the use of analysis to determine a formula for computing the total Dirichlet's energy of Z^n , which is related to the existence or not of non-constant p-harmonic functions; similarity to groups, the growth of sumsets and polytopes of finite lattices; solving special linear systems by using an addition aggregation formula based on Schur's method to speed up computations and result in less use of computer memory and greater accuracy; the proof of the structure theorem for a certain class of groups of automorphisms whose subgroup generated by the commutators is abelian; a study of the relation of George Sarton (1884-1956), Chinese Mathematics; and participation of one of our faculty as a character in the amusing play "*Lewis Carroll in Numberland*." Another collateral result from our participation was learning about projects supported by the NSF. We had conversations with investigators of current projects that we could use or modify for our students. For example, a project implemented in California at Diablo Valley College where the students have field trips to local businesses and industries to learn of real-life examples of applied calculus. Another very interesting project that caught our attention was web-based National Curve Bank of graphs. It has the same philosophy of Wikis, with the added quality control of mathematicians as editors. The site resides at the California State University and can be accessed via curvebank.calstatela.edu. Finally, a web-based software developed by using a mainstream computer algebra system that can be used "*for tutoring without the tutor*." Students can select a friendly web-based environment and course topic, then a problem to be worked out. The software will direct them on all steps of the solution(s) with feedback at intermediate steps along the way towards a solution. However, there is one pitfall: the software is still being developed and, once finished, will be commercialized. If you are interested you can contact Prof. Yasskin at yasskin@math.tamu.edu.

CALL FOR PARTICIPANTS AND INVOLVEMENT

Call For Abstracts: General Contributed Paper and Poster Sessions

The Metropolitan New York Section of the MAA is soliciting abstracts for the *Contributed Paper and Poster Sessions* of its 2009 Spring Meeting to be held on Sunday, May 3 at the Webb Institute. All interested professionals and students are encouraged to submit an abstract. Once again this year the *Contributed Paper Sessions* will feature presentations on mathematical research as well as mathematics education. See page 7 for the particulars.

Call For Art-Work: Math-Art Show Exhibit

Visual Mathematics has become a very popular subject in contemporary mathematics. This year we are planning the second annual exhibit of mathematically inspired art: *Mathematical Art Poster Session* at the May 3rd Metro NY MAA Meeting. Some examples are computer generated visualization of mathematics, fractals, tessellations, geometric art, etc. We welcome student math-artworks. See page 8 for the particulars.

Call for Math Fair Judges

The **Al Kalfus Long Island Math Fair** will hold its Preliminary Round (Western) on Friday, March 6, 3 PM, at Hofstra University, Preliminary Round (Eastern) on Friday, March 20, 3 PM, at Half Hollow Hills HS, and the Final Round on Friday, May 1, 3 PM at Hofstra University. Judges are needed at all levels (grades 7-12). If you wish to judge, please contact Joe Quartararo at 631-584-2016 or mathfair@optonline.net.

The **Greater Metropolitan New York Math Fair** is an annual event in which High School students from all over New York City compete with math projects. It is a great privilege as well as an enjoyable experience to help high school youngsters advance in their pursuit of creativity. Anyone who can spare one or two days - March 1 and March 29, 11-4 PM, is invited to sign up as a judge. You can sign up by visiting the MathFair URL: www.bths.edu/forms/math_fair_judges/. Those who judge, whether one day or both days, besides receiving the satisfaction of helping youngsters grow in creativity, also receive:

- a) A free brunch,
- b) A social hour when you can meet colleagues from other colleges and high schools, and
- c) Official Letters of Thank you sent to your chairs.

Go Back to School, Join *The Mathematics Speakers Bureau!!!*

Do you have a talk which would be suitable for local area students or their faculty? We are seeking mathematicians interested in sharing their knowledge, enthusiasm, and love of mathematics. Now in its 49th year, the Mathematics Speakers Bureau (MSB) is composed of dedicated mathematicians who volunteer to speak to students and faculty of regional middle schools, high schools, colleges and universities on topics reaching beyond the traditional mathematics curriculum.

The primary goals of the MSB are to stimulate the interests of local youth in mathematics, to provide opportunities for students to meet active and enthusiastic mathematicians, to motivate students towards careers in the mathematical sciences, and to encourage cooperation between corporate and academic institutions in the mathematical education of area youth. Volunteers provide information about talks they are willing to give and the Bureau, in turn, advertises these talks to the faculty of local area schools. Schools contact speaker volunteers directly to make specific arrangements for a visit. Volunteers determine the number of presentations they give in any given academic year and always maintain the right to decline any invitation to speak. The Bureau web-page (www.maa.org/metrony/speakers) contains an up-to-date listing of available speakers and their proposed talks. Additional information regarding the goals, history and operation of the Bureau can also be found at this site. If you wish to volunteer with the MSB, please contact Bureau Chair Abe Mantell at mantell@ncc.edu.

MetroMath Needs You!!!

Consider submitting a short announcement, commentary, article, study, experience, or other news-worthy item in the next issue of *MetroMath*. Contact the editor, Abe Mantell, via e-mail: mantell@ncc.edu.

NEWS FROM THE MAA

(much more can be found at: <http://www.maa.org/news/news.html>)

Urgent: Contact Your Congressmen to Support Math Funding in Stimulus Package

Tina Straley, MAA Executive Director

The U.S. House recently passed an \$820 billion economic stimulus bill, the American Recovery and Reinvestment Act of 2009 (ARRA), which included \$2.5 billion in funds for the National Science Foundation (NSF), including \$100 million for the Education and Human Resources (EHR) Directorate and programs such as Robert Noyce Teacher Scholarships and Math Science Partnership. Today the U.S. Senate passed its version of the bill, totaling \$819 billion with \$1.2 billion in funds for the NSF, of which \$50 million is directed to EHR for STEM education. The next step will be to reconcile these and many other differences in the two versions of the bill before a final measure is voted on. Congress is still working to complete the package and send a bill to the President by the end of the week, before the President's Day recess.

At this point, MAA is encouraging its members and supporters to weigh in with their House and Senate representatives in favor of the greater investment in NSF that is included in the House version. If you have a direct contact in those offices, please send them an email urging their support for the House funding level. If you do not have an existing relationship, please take a few minutes to go to their website to either enter a comment directly through their constituent views portal, or to find another email or fax contact. Phone calls are not very effective at a time of very high volumes such as this.

The following websites will direct you to your Representatives and Senators home pages, which have links to send messages to them. Your message should simply ask them to support the funding for NSF at the House proposed level. You should also urge them to support funding for undergraduate STEM education at NSF, preferably through support of course, curriculum, and laboratory improvement. (That was at one time in the bill but has been deleted, you could ask for its reinstatement.)

Thank you for your assistance with this important advocacy initiative.

http://www.house.gov/house/MemberWWW_by_State.shtml

http://www.senate.gov/general/contact_information/senators_cfm.cfm

Tools for Teaching Mathematics in the United States, 1800–2000

Mathematical education in the United States has long relied on a variety of ingenious devices to convey important ideas and give students valuable experience in the classroom.

Such historical objects, from protractors and linkages to geometric models and calculators, were the subject of a recent [presentation](#) at the MAA's Carriage House Conference Center. They are also the subject of a new book, *Tools of American Mathematics Teaching, 1800–2000* (Johns Hopkins University Press, 2008), by Peggy A. Kidwell, Amy Ackerberg-Hastings, and David L. Roberts.

U.S. educators, struggling to teach mathematics well, made one particular tool a mainstay in instruction: the protractor. Hundreds of years old, this object (along with the ruler and compass) became ubiquitous in U.S. schools. It played a key role in the formal treatment of geometry. Ackerberg-Hastings, who holds a doctorate in the history of technology and science from Iowa State University, summarized its historical relevance to 19th-century U.S. education.

Linkages, on the other hand, never caught on in the U.S. classroom. Inspired by James Watt's steam engine and developed to allow users to draw a straight line, linkages played a more important role in mechanical engineering than in mathematics education, said Roberts, who holds degrees in mathematics and the history of science. He offered brief histories of a slew of these relatively little-known tools—the slider-crank linkage, [Peaucellier Inversor](#), and others—and portraits of the mathematicians who promoted them: [George Halsted](#), Frank Morley, and Robert Yates.

(continued)

Models of simple geometric objects, such as spheres, cones, and cubes, did capture U.S. educators' attention. Created by [Josiah Holbrook](#) in the 1830s, they were inspired by his notion that they were "good enough for the best and cheap enough for the poorest," which reflected a populist ideal of education.

More sophisticated geometric models, on the other hand, were imported by U.S. mathematicians who had received their doctorates abroad. Some sets of models, dating from 1893, included projections of polytopes, created by German mathematician Victor Schlegel and distributed by Ludwig Brill. Other examples included the hyperbolic paraboloid, the quintic scroll, and [Baker's Gaussian Surface](#) and Riemann Surface.

Kidwell, who is Curator of Mathematics at the Smithsonian's National Museum of American History, noted that today's popular mathematical models and tools will themselves eventually become objects of historical study as trends and fashions in math teaching ebb and flow.

The Smithsonian's website features an [online exhibition](#), curated by Kidwell, called "[Slates, Slide Rules, and Software: Teaching Math in America](#)." Kidwell was also responsible for the Smithsonian exhibit "[Mobilizing Minds: Teaching Math and Science in the Age of Sputnik](#)." — *H. Waldman*

China Girls Math Olympiad: U.S. Wins Two Gold, One Silver, and Five Bronze Medals

The [2008 China Girls Mathematical Olympiad](#) (CGMO) has wrapped up, and both of the MAA-sponsored U.S. teams are bringing home plenty of extra luggage. All eight girls who participated for the U.S. earned a medal.

- Lynnelle Ye with a score of 87 earned a gold medal
- Jenny Iglesias with a score of 81 earned a gold medal
- Wendy Mu with a score of 63 earned a silver medal
- In Young with a score of 54 earned a bronze medal
- Carolyn Kim with a score of 45 earned a bronze medal
- Colleen Lee with a score of 48 earned a bronze medal
- Joy Zheng with a score of 48 earned a bronze medal
- Jenny Jin with a score of 39 earned a bronze medal

MAA Director of Competitions Steve Dunbar said, "We are very pleased that each one of our team members will bring home a medal. This shows that our talented young women do very well in international mathematical competitions."

To get ready for the contest in China, which has been held annually since 2002, the young women spent three weeks at the [Mathematical Olympiad Summer Program](#) at the [University of Nebraska, Lincoln](#), which helped them develop their problem-solving skills. The preparation also helped boost their confidence for participation in an international competition.

The teams then traveled to Zhongshan, in [Guangdong Province](#) near [Hong Kong](#), where they got to explore Hong Kong and [Shanghai](#) before the competition began.

Coaches for the team were Zuming Feng of [Phillips Exeter Academy](#) and director of the Mathematical Olympiad Summer Program since 2003; [Alison Miller](#), a member of the 2004 U.S. IMO team; and MIT student [Maria Monks](#).

Other sponsors of the U.S. teams are [Intel](#); [Akamai Foundation](#); [Mathematical Sciences Research Institute](#); [Shiing-Shen Chern Foundation for Mathematical Research](#); and [Sunlin and Priscilla Chou Foundation](#).

For comments from the eight CGMO participants, visit <http://www.msri.org/specials/gmo/2008>.



EVENTS CALENDAR

Al Kalfus Long Island Math Fair 2009

March 6, Friday, (Round 1 – Nassau County) Hofstra University

March 20, Friday, (Round 1 – Suffolk County) Half Hollow Hills HS (East & West)

May 1, Friday, (Final Round) Hofstra University

All rounds begin at 3:00 PM. Grade Levels are 7-12 for math and 10-12 for computers.

For more information, call Joseph Quartararo at (631) 584-2016 or e-mail: mathfair@optonline.net

42nd Greater Metropolitan New York Math Fair 2009

March 9, Sunday, (Round 1) Polytechnic University, Brooklyn, NY

April 6, Sunday, (Round 2) Polytechnic University, Brooklyn, NY

For more information contact Russell Jay Hendel at RHendel@Towson.Edu

For judging, visit: www.bths.edu/forms/math_fair_judges/

ATMNYC Mini-Conference • March 12, 2009, The Mary Louis Academy, Jamaica Estates, NY

For more information visit: www.atmnyc.org

MAA New Jersey Section Spring Meeting in conjunction with the

6th Annual Garden State Undergraduate Mathematics Conference • March 29, 2009

Monmouth University, West Long Branch, NJ

For more information visit: www.maa.org/NewJersey or www.maa-nj.org/GSUMC.html

MAA Seaway Section Spring Meeting • April 3-4, 2009, Rochester Inst. of Tech., Rochester, NY

For more information visit: www.maa.org/Seaway

NYSMATYC Annual Conference • April 17-19, 2009, Albany, NY • Visit: www.nysmatyc.org/conf2009

Hudson River Undergraduate Mathematics Conference XVI • April 18, 2009

Union College, Schenectady, NY • Visit: www.skidmore.edu/academics/mcs/pages/hrumc.htm

NCTM Annual Meeting and Exposition • April 22-25, 2009, Washington, DC

For more information visit: www.nctm.org/conferences/

Spuyten Duyvil Undergraduate Mathematics Conference • April 25, 2009, SUNY – New Paltz, NY

For more information see page 21, and visit: home.manhattan.edu/~joan.harnett/sdumc

AMS Eastern Section Spring Meeting • April 25-26, 2009, Worcester Polytechnic Institute, Worcester, MA

For more information visit: www.ams.org/amsmtgs/2165_program.html

Metropolitan New York Section Meeting • May 3, 2009, Webb Institute, Glen Cove, NY

For more information see this newsletter, or visit: www.maa.org/MetroNY

5th Cornell Probability Summer School • July 6-17, 2009, Cornell University, Ithaca, NY

For more information visit: www.math.cornell.edu/~durrett/CPSS2009/

MathFest • August 6-8, 2009, Portland, OR • For more information visit: www.maa.org/mathfest

NCTM Regional Conference and Exposition • October 21-23, 2009, Boston, MA

For more information visit: www.nctm.org/conferences/content.aspx?id=18223

AMS Eastern Section Fall Meeting • October 24-25, 2009, Penn State U., University Park, PA

For more information visit: www.ams.org/amsmtgs/2171_program.html

AMATYC Annual Conference • November 12-15, 2009, Las Vegas, NV

For more information visit: www.amatyc.org/Events/conferences/2009LV/

ATMNYC 2009 Fall Conference • November 21, 2009, Hunter College, New York, NY

For more information visit: www.atmnyc.org

MAA-AMS Joint Mathematics Meeting • January 16-16, 2010, San Francisco, CA.

For more information visit: www.maa.org/meetings/national_meetings.html

Farmingdale State College (SUNY) to Host Conference on Mathematics and Biology: The New Educational Synergy

Many people believe that mathematics will do as much for the biological sciences during the twenty first century as it has done for the physical sciences during the twentieth century. A major national initiative is now underway to bring this new synergistic relationship between the two fields into existence. To do so requires, in part, some significant changes in both the mathematics and biology curriculum at the high school and introductory college level. Mathematics educators need to introduce more examples drawn from biology and to emphasize the kinds of mathematics used in the biological sciences. Biology educators need to increase the level of mathematics they use in their courses and laboratories to build on the new quantitative foundations.

The conference is intended to provide the background information needed for educators from both disciplines to begin thinking about how to revamp their offerings. The Conference brings together some of the leading proponents of this movement from both fields to share their visions and experiences.

Conference to be held on Friday, April 17, 2009, 8:30 AM, at Farmingdale State College, Lupton Hall, IRTT Conference Room. Send check for \$20.00 (including lunch) made payable to ASC, to Dr. Loucas Chrysafi, Mathematics Department, Farmingdale State College, 2350 Broadhollow Road, Farmingdale, NY 11735. Include name, address, phone and e-mail. Call 631-420-2182 for more details, or check the conference webpage: <http://snyfarvc.cc.farmingdale.edu/~gordonsp/CurrentProjects/Math-and-BiologyConference.html>.

SUNY New Paltz Hosts Undergraduate Mathematics Conference

SUNY New Paltz will host the **4th Annual Spuyten Duyvil Undergraduate Mathematics Conference on Saturday April 25, 2009**. The goal of the conference is to offer undergraduates the opportunity to attend and actively participate in a professional mathematics meeting, and more broadly, to encourage mathematical conversation among undergraduates. Registration for the one-day conference will be free, and lunch will be provided for those who pre-register.

Please encourage your undergraduates to make a presentation at the conference! The fifteen minutes talks may range from expository talks, understandable by freshmen and sophomores, to presentations of results from undergraduate research experiences. Undergraduates may also apply to present a poster. Presentations on material from closely related fields are also welcomed, as are faculty talks, provided the content will be of interest to our primarily undergraduate audience.

The Conference will feature a keynote address by Prof. Richard Askey of the University of Wisconsin, at least two concurrent sessions of talks by undergraduates, a poster session, and a panel discussion on careers for mathematics majors. For more information, please email Dominicd@newpaltz.edu or Kathryn.weld@manhattan.edu. To submit an abstract for a talk, or to register for the conference, please visit the website home.manhattan.edu/~joan.harnett/sdumc/.

Funding for this conference is partially provided by NSF grant DMS-0241090 through the MAA Regional Undergraduate Mathematics Conferences Program, www.maa.org/RUMC/.

Conference Directors: Diego Domenici, SUNY New Paltz; and Kathryn Weld, Manhattan College.

Conference on Undergraduate Research in Mathematics Penn State University, University Park, PA

Penn State University's Mathematics Department will host its 2009 Conference on Undergraduate Research in Mathematics on November 20-21, 2009. This conference will showcase mathematical research by undergraduate students through 15-minute contributed talks. Financial support is available. For more information and to register, please go to <http://www.math.psu.edu/ug/curm/conferences/2009/>

Please share this announcement with your undergraduates and their faculty mentors.

Questions? Contact the conference co-coordinators, James Sellers and Diane Henderson, at curm@math.psu.edu.



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SUNY – Stony Brook Master's Program in Applied Statistics

Math majors looking to maximize the value of their undergraduate training should be encouraged to consider professional careers as statisticians. There is increasing demand for statisticians in virtually every business and industry. Stony Brook's Applied Mathematics and Statistics Department offers a 3-semester, modestly priced M.S. program in applied statistics, as well as in operations research, tailored to this demand. Recent statistics M.S.'s have gone to well-paid positions in Wall Street investment houses, major banks, drug companies, medical centers, government and corporate research labs, and more. There is a new 5-course cluster in quantitative finance. For more information, see www.ams.sunysb.edu, or write or call: Graduate Program Director, Department of Applied Mathematics & Statistics, SUNY – Stony Brook, Stony Brook, NY 11794-3600 (631-632-8360). Applications for Fall, 2009 considered through July, 2009.

Bard High School Early College II - Full Time Faculty Positions in Mathematics



A national model for the reform of adolescent education, BHSEC II seeks applicants in the field of mathematics interested in working with a diverse group of motivated New York City students in a program that enables them to move in four years from ninth grade through the first two years of college, earning an Associate of Arts degree from Bard College, as well as a New York State Regents diploma.

We seek to hire mathematicians from any subfield who are interested in teaching and in developing a research program. The successful applicants will have college teaching experience, will hold the Ph.D., and will be skilled educators interested in engaging and challenging early college students.

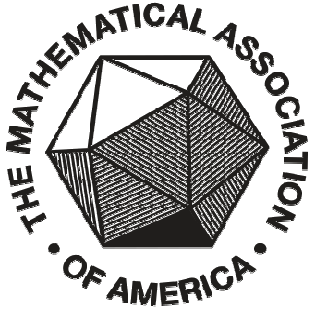
In addition to introductory courses and electives as needed in the college program, s/he will teach math in our innovative high school program. Successful candidates will join the Division of Science Mathematics and Computing and will work collaboratively with colleagues in developing and teaching an innovative curriculum and involve interested students their research.

To apply, send a letter of interest (including research interests), curriculum vitae, and three letters of recommendation to hireing@bhsec.bard.edu or to the address below. In addition, please include a brief classroom or education story which you interpret for us (c. 200 words). Review of applications begins immediately and will proceed until April 1, 2009 or until the positions are filled.

Patricia Sharpe, Dean of Studies
Bard High School Early College II
45-10 94th Street
Elmhurst, New York 11373-2824
718 271-4171 extension 4712
http://www.bard.edu/bhsec/employment_II.shtml

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METROPOLITAN NEW YORK SECTION
OF THE
MATHEMATICAL ASSOCIATION OF AMERICA

ANNUAL SPRING MEETING
SUNDAY, 3 MAY 2009

Webb Institute
Glen Cove, NY

INVITED SPEAKERS

George E. Andrews, The Pennsylvania State University
Ramanujan, the Lost Notebook, and Related Incidents

Edward B. Burger, Williams College

How Always to Win at Limbo, or You can sum some of the series some of the time, and some of the series none of the time... but can you sum some of the series ALL of the time?

EXHIBIT

Math-Art Show

Curator Anne Burns, Long Island University, C. W. Post Campus

GUEST PRESENTATION

Janet H. Barnett, Colorado State University
Straight from the Source's Mouth: Teaching Discrete Mathematics via Primary Historical Sources

WORKSHOP

Ivars Peterson, Director of Publications, MAA
Communicating Mathematics

SPECIAL PRESENTATION: *Math Jeopardy* (for students)

CONTRIBUTED PAPER AND POSTER SESSIONS

Research, Pedagogical, and Student Presentations

FOR MORE INFORMATION PLEASE VISIT OUR WEBSITE AT
www.maa.org/metrony

Mark Your Calendars!!!

Spring Meeting

**Webb Institute
Glen Cove, NY**

Sunday, 3 May 2009

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Abe Mantell, Editor

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