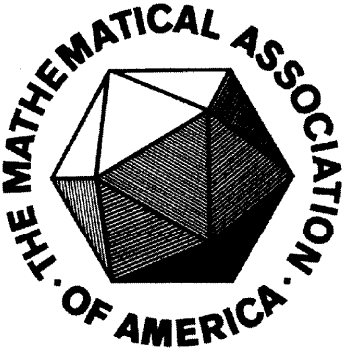
# NORTHEASTERN SECTION




# NEWSLETTER

# FALL 2007

**Volume 29** **Number 2**

**Web Page:** **http:/www.maa.org/northeastern**
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## NEXT SECTION MEETING

November 16 and 17, 2007 — Fall Section Meeting
Framingham State College, Framingham, MA
Program Chair: Sarah Mabrouk, Framingham State College
Local Chair: Sarah Mabrouk, Framingham State College

## FUTURE SECTION MEETINGS

May 30 and 31, 2008 — Spring Section Meeting
St. Michael's College, Colchester, VT

Fall 2008 Bentley College, Waltham, MA

## OTHER ACTIVITIES

November 16, 2007 — Section NExT Meeting
Framingham State College

## COORDINATORS

| | |
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| Dinner Meetings: | Lucy Kimball<br>lkimball@LNMTA.bentley.edu |
| NES/MAA Distinguished Teaching Award: | Jason Moliterno, Sacred Heart<br>smabrouk@frc.mass.edu |
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| Graduate Papers: | Sarah Mabrouk, Framingham State College<br>smabrouk@frc.mass.edu |
| Contributed Papers: | Rob Poodiack, Norwich University<br>rpoodiac@norwich.edu |
| Problem Competition: | Jason Moliterno, Sacred Heart University<br>MolitiernoJ@sacredheart.edu<br>Rob Poodiack, Norwich University<br>rpoodiac@norwich.edu |

## Message from the Chair…….Tommy Ratliff

In my final message as Chair, I would like to thank Section for providing me the opportunity to serve in this role. I have been involved in the Section in various capacities since I came to Wheaton in 1996, but I did not truly appreciate until serving as Chair how much work goes on behind the scenes by a dedicated group of Section members who graciously volunteer their time despite their other professional and personal commitments. I will not try to list everyone here (since it's almost certain that I would forget someone!), but the next time you attend a Section meeting, get an announcement about a Dinner Meeting, receive the Newsletter, or your students participate in one of the Sections' undergraduate programs, take a minute to think about the people who gave their time to organize the event and thank them when you have the opportunity.

There are several items of particular notice that have happened since the Spring Newsletter came out:

- Congratulations are due to Ken Gross from the University of Vermont for winnning the Haimo award for Distinguished College or University Teaching of Mathematics. This is the highest teaching honor that the national MAA offers. The long line of winners from the Northeastern Section confirms something that we have long known - there are an extraordinary number of extraordinary teachers in the NES!

- Our Spring Meeting at Keene State was a wonderful weekend. Special thanks go to the Program Committee, co-chaired by Vince Ferlini and Frank Ford and joined by Zenaida Ramos, and the Local Arranglements Committee, chaired by Ockle Johnson and joined by Joseph Witkowski. I would encourage those of you who haven't attended a Spring Meeting recently to take a couple of days to visit St. Michael's for the Spring Meeting on May 30-31, 2008.

There are a couple of very exciting events upcoming this fall.

- On October 27, the NES and Bentley College are sponsoring Math at Work: Careers in the Mathematical Sciences Student Conference. You have hopefully received several announcements via email about the conference, which will be a marvelous opportunity for your students to be able to answer the age-old question "So just what can I do with a math major?" Karen Schroeder and the organizing committee have done a fantastic job putting together this conference for our students.

- The upcoming Fall Meeting at Framingham State on November 16-17 promises to be another outstanding event. I won't try to summarize the many exceptional invited talks during the weekend, but please look at the meeting website (linked from the NES homepage) for the complete program, and I think you will be suitably impressed. There are also many opportunities for you and your students to participate in the meeting, from the Contributed Talks Sessions, to Section NExT, to the Student Problem Competition.

Finally, the Executive Committee has discussed forming several committees to focus on the particular tasks of the Section, including committees on Communications, New Colleagues, Student Programs, Professional Development, and Section Meetings, in

addition to the existing Section Awards committees. The idea is to provide a structure for coordination among the various groups and individuals who are responsible for the Section activities. If you are interested in participating in any of these committees or have suggestions for their organization, please contact one of the members of the Executive Committee.

Once again, I want to thank you for allowing me to serve as Chair for the last two years, and I look forward to seeing you at the Section events this fall.

## Message from the Governor..... Ockle Johnson

The Board of Governors met this summer prior to a very successful Mathfest in San Jose.

The MAA is in good shape financially with a $10 million operating budget, $7.5 million in endowments and investments, $9 million in buildings and $6 million in grants. There were two areas of concern, however. The 2008 budget projected a $300,000 deficit, but due to conservative budget practices, it is anticipated that the final deficit will be considerably less. (We know that Rick Cleary will be keeping an eye on this as a member of the budget committee.) Second, membership dropped 3%, due in part to a restructuring of dues, a sizeable increase in dues for retirees and a transition period without a Membership Director.

Membership issues will be addressed as one of the topics for cycle 2 of the strategic planning process, along with governance and students. We voted for the following cycle 3 topics: meetings, sections, and STEM issues.

The Carriage House at MAA headquarters officially opened in April and there is much excitement about its potential. $40,000 has been raised through the "brick campaign" for a brick walkway to the Carriage House. Engraved bricks cost $303—Paul Halmos' birthday was 3/03—and sections as well as individual members are encouraged to buy one.

Ivars Peterson, our new Director of Publications for Journals & Communication, has been working on MAA On-Line and invites us to see what's new every day. While on-line you can check the list of MAA committees and let me or Martha Siegel know if you would like to be on one.

Don Albers, now the Editorial Director, Publications-Books, reported that sales are up 8%. The Euler Series has done very well. A new series will debut soon: MAA guides for curriculum, with Algebra, Number Theory, and Complex Analysis in the works and Real Analysis to follow.

NExT now has over 1000 fellows. This year there are 84 fellows representing every section of the MAA. We welcome to our section Lynette Boos, Trinity College, Shannon Lockard, Bridgewater State College, Pedro Poitevin, Salem State College and Rachel Schwell, Trinity College.

It was a pleasure to vote for Ken Gross as one of the recipients of the national Haimo Award for Distinguished University and College Teaching. Another one of this year's recipients, Annalisa Crannell, began her involvement in the MAA in our section as a graduate student at Brown.

At the urging of Ed Sandifer and the backing of others from the section, I raised the issue of conducting job interviews in hotel rooms. The Board of Governors approved a motion made by Martha Siegel and me that states: "The MAA strongly discourages the use of personal hotel sleeping rooms as the site for professional interviews of prospective employees. This practice is intimidating to some job-seekers, particularly those who find the situation uncomfortable and potentially unsafe. This practice also has the potential for serious legal consequences for the interviewer."

If anyone has any issues they would like me to bring to the January Board of Governors meeting, please let me know.

I hope you are having a good fall semester. I hope to see you at the fall section meeting at Framingham State College and at the Joint Meetings in San Diego.

**Message from the Secretary-Treasurer ..... Ann Kizanis**

In the Spring newsletter, I reported a balance of $19,304.32. Since that time, we had $2,864.55 in food and residence expenses from the successful Spring meeting at Keene State College. We spent $473.60 on travel reimbursements for that meeting. The expenses from the Spring meeting were $3,338.15, while the revenue from meeting registrations was $3,785.00. The expenses for the printing and postage of the Spring newsletter for that meeting totaled $929.72. We also received our yearly subvention check for $2,880.00 from the national office at the end of the summer. Moreover, we earned $314.09 in interest since the last newsletter. This summer, I opened a 13-month CD in the amount of $12,000 with APY 4.70% that will mature on July 7, 2008. Our present balance is $22,015.54.

We spent less on travel reimbursements for this meeting than we did for the Fall meeting last year, and our expenses for the postage and printing of our newsletter were $500.67 less than the expenses last year at the same time. We are very excited to be funding a portion of the expenses from the *Careers in the Mathematical Sciences Student Conference* at Bentley College this October, since our balance has been increasing over the last few years.

In the spring, I wrote and submitted the yearly Financial Report of the Northeastern Section of the MAA. I also wrote our section's Annual Report at the beginning of the summer.

That is my update for now! We are all looking forward to the Fall MAA

meeting at Framingham State College on November 16-17, where I will update you further on our finances. I wish you all a very enjoyable fall semester!

**Two-year College Representative's Report .....Lois Martin**

The 33rd annual AMATYC conference will be held in Minneapolis from November 1-4. Phil Mahler (Middlesex CC) and Lois Martin (Massasoit CC) will be accepting awards for their math teams that tied for the Northeast Region championship, topping a field of sixteen community colleges in New York and New England. This is the 3rd time in four years that the Massasoit team has taken top honors.

In Spring 2007, NEMATYC made its first Student Math League Recognition Awards. This award program was established to foster extracurricular mathematics learning opportunities for students through participation in the AMATYC Student Mathematics League. The top-scoring student from each NEMATYC primary service area school received a $100 Recognition Award. The top student in the Northeast region for the second consecutive year, Nathan Gilbert (Middlesex Community College), will receive additional recognition at the AMATYC conference in November.

NEMATYC hosted its second successful Fall Dinner Meeting on October 12 in Worcester. Andrew Chen PhD, EduTron Corporation and MIT spoke on the topic " Cross-cultural Lore ... and Don't Shoot the Messenger!"

MATYCONN's Fall 2007 meeting will be held on October 26 at Naugatuck Valley Community College. Dr. Michael Nabel, Quinnipiac University, will speak on "Using Magic to Motivate Learning of Mathematics".

NEMATYC 2008, "Keeping it Real in 08", will be held on April 11-12 at Springfield Technical Community College. See the web site www.NEMATYC.org for a Call for Presenters.

Several area community college faculty have participated in Project ACCCESS. Marsha Pease, North Shore Community College is the newest fellow, joining Amy Adams and James Giumarra (Benjamin Franklin Institute of Technology), Marianne Rosato (Massasoit Community College), Curtis Mitchell (Greenfield Community College), and Anne O'Shea (North Shore Community College).

Glenn Pavlicek (Bridgewater State College) and Lois Martin (Massasoit Community College) were invited to address the Commonwealth Transfer Advisory Group regarding the work done by the CONNECT Mathematics group

relative to facilitating transfer of mathematics courses in Southeastern Massachusetts.

**From the Newsletter Editor ..... Frank Ford**

Congratulations to Tommy Ratliff on a successful two years as Chair of the Section. He has established a new committee structure, studied the need for a Spring meeting, co-sponsored a Career Day at Bentley, taken over our web page, inaugurated a problem contest at the Fall meeting, increased communication to the membership, and generally kept us moving forward. Fortunately, he will not leave us since he now becomes "past chair" and retains a vote on the Executive Board. Thank him when you see him at the meeting.

At precisely the moment that the Fall meeting ends, Jason Moliterno becomes the thirty-ninth Chair of our Section. We know he will do a good job.

Below, you will see Ken Gross' reaction to winning a Haimo Award for Teaching. He is the 8th member of our Section to win this national award and the second in two years, following Gil Strang's win last year. We won three in a row from 199241996. Send in a nomination that will get us another three in a row.

**Undergraduate Student Papers Presented at the NES/MAA Spring 2007 Meeting**

**Introduction to Vensim**
Nathan MacKay, Keene State College
**Simulation of Pigs for the Ancestors**
William Eller, Keene State College
**Numerical Convergence of the Discreet Logistic Map**
Chris Bresten, UMass Dartmouth
**Stochastic modeling of Amur tiger population dynamics and viability**
Michael Gagnon, UMass Dartmouth
**Candy, Cones, and Chaos**
Ron Colaianni and Adam Gilbert, Merrimack College
**Bungee jumping**
Jennifer Carvalhal, Rhode Island College
**What's so special about Kevin Bacon? Using Graph Theory to investigate the properties of Social Networks**
Mark McGettrick, Salem State College
**Lost in space**
Mark Tokarz and Marc Pereira, Westfield State College

**Contributed Papers Presented at the NES/MAA Spring 2007 Meeting**

**Active Learning Innovations for Liberal Arts Mathematics Class**

Annela Kelly, Roger Williams University
**Some Comparisons of Voting Systems (Preliminary Report)**
Robert Z. Norman, Dartmouth College

**Response from Ken Gross to receiving the Haimo Award**

(The Northeastern Section is proud to learn that Kenneth I. Gross, University of Vermont, is a winner of a Haimo Award this year. He will receive it at the Joint Meetings in San Diego this January. I asked him for his reaction and this is what he sent. –the editor.)

I am honored to be asked by the MAA-NES to share with the readers of the Newsletter my thoughts on receiving the Deborah and Franklin Tepper Haimo Award for Distinguished Teaching of Mathematics.

Notification of the award came in an e-mail message which I read while on lunch break from an intensive five day course I was presenting to elementary and middle school teachers in the Little Rock School District in Arkansas. As I walked back to class, I reflected upon the immense dedication of these teachers, their concern for the well-being of their students, the difficulty of their job, and that many of them deserve a teaching award they will probably never receive. It was simultaneously a joyful and humbling experience to be the recipient of such a prestigious national award.

Being an educator is a special profession, for it offers immortality. We are all eventually going to die, but in our profession we can live on in the hearts and minds of the students whose lives we have touched and enriched. We become a link in the chain of relationships from those who have been our mentors to those whom we have mentored and will become the mentors of others. I feel, therefore, a profound sense of gratitude to the many outstanding teachers who nurtured me in my own education and along my career path, and the many hundreds of wonderful students at all levels of the educational spectrum whose friendship I cherish and whose contributions to education, knowledge, and humanity I admire.

To be a parent is to be a teacher, and I was especially inspired by my mother, widowed during my childhood, from whom I acquired a strong work ethic and learned the importance of questioning conventional wisdom; by my older brother Herb, a surrogate father to me in my youth and a distinguished educator in his own right, from whom I absorbed by osmosis the critical role of strong human values in education and in interpersonal relationships in general; and by my Ph.D. advisor, research collaborator, and life-long friend Ray Kunze, without whom I would never have become a mathematician. I have been blessed many times over.

In closing I want to express heartfelt thanks to the national MAA, to the New England Section of the MAA for the Distinguished Teaching Award that qualified me for the national award, and to my colleagues in the Department of Mathematics and Statistics at the University of Vermont for creating an atmosphere in which high quality teaching at all levels is a primary imperative.

**MAA Certificate for Meritorious Service in the Northeastern Section**

**Donna Beers** has long been generous and gracious in offering her time, talents and infectious enthusiasm to The Mathematical Association of America through both the Northeastern Section and at the national level. She is well-known and highly regarded by mathematicians and mathematics educators throughout the broader mathematics community. It is no surprise to many that The Mathematical Association of America would seize this opportunity to recognize and honor Donna through this MAA Certificate for Meritorious Service.

Her contributions to our association are numerous and varied. Donna served as Section Vice Chairperson from 1992-1993, Chairperson from 1993-1995, and Past Chairperson from 1995-1997. She served as Section Governor from 2000-2003. Throughout the period of her leadership the section continued to prosper by offering varied and interesting programs that were well received by the membership. Donna has often been an invited speaker at section meetings, from the 1970s to the present, where she offered her insights into a variety of mathematical and educational topics. In 2003 she gave the invited presentation for students at the MAA-AMS Joint Mathematics Meetings in Baltimore. In addition, she has given many contributed papers at both section and national meetings. She hosted a section minicourse in 1995 as well as very successful section dinner meetings each year since 2004. She was the Chairperson of the Program Committee for the Spring 1990 Section Meeting at Roger Williams College. Further, she has served on and chaired numerous NES/MAA committees, including several program committees for section meetings. She is a current or former member of the MAA editorial boards of The American Mathematical Monthly, the College Mathematics Journal, the Dolciani Mathematical Expositions, and Focus/MAA Online. She also serves on the steering committee of the MAA PREP Workshop: Leading the Academic Department: A Workshop for Chairs of a Mathematical Sciences Departments.

Donna is Professor of Mathematics and past Chair of the Department of Mathematics and Computer Science at Simmons College, where she has been since 1986. She teaches a variety of courses including calculus, discrete mathematics, linear algebra and modern algebra. Her scholarly interests include preparation of teachers, undergraduate research, and abelian groups. She served as Director of the Honors Program, and created a very successful interdisciplinary Honors seminar on patterns. She currently serves as coordinator and principle investigator of a project to work with TechBoston, a

department of the Boston Public Schools, to create a mentoring program for high school women interested in Web design and programming. Her extracurricular interests include Lindor truffles, aerobic exercise, and jazz.

For her hard work and continuing commitment to the advancement of mathematics and of the MAA, Donna Beers is deserving of recognition. The Mathematical Association of America and the Northeastern Section are pleased to award Donna Beers this Certificate for Meritorious Service.

**From the Colleges**

**Bridgewater State College** (reporter **Tom Moore**) **Robert Sutherland** just retired from the Mathematics and Computer Science department here at BSC. He was very helpful to the MAA/NES when we hosted the Fall,2001 meeting. I have been teaching a new course on Mathematical Games and Puzzles for current teachers, K to 8.

**Fairfield University** (reporter **Matthew Coleman**) **Steve Sawin** was granted promotion to Full Professor. **Ben Fine's** book "Number Theory: An Introduction via the Distribution of Primes" (with **Gerhard Rosenberger**) was published by Birkhäuser . The sad news to report is that **George Lang** passed away suddenly this past May. He had been at the University since 1970. See his obit below.

**Fitchburg State College** (reporter **Claire McAndrew)** On October 2, 2007 Fitchburg State held an installation ceremony for our new Massachusetts Eta Chapter of Pi Mu Epsilon at which nine of our mathematics majors and four faculty members were inducted as charter members of the FSC Pi Mu Epsilon chapter. The installing officer was Dr. Brigitte Servatius, Pi Mu Epsilon journal editor and councilor and professor of mathematics at WPI.

**Framingham State College** (reporter **Sarah Mabrouk**) **Sonja Sandberg** became Chair of the Mathematics Department effective July 1, 2007. **Walter Czarnec** completed his term as Chair of the Mathematics Department on June 30, 2007. **Dr. Thomas Koshy** was selected as the 2007 Distinguished Faculty Member. He was awarded his medallion during Commencement on May 27, 2007, and he gave an address to graduating students during the 2007 Commencement as well as to incoming students during the New Student Convocation on September 4, 2007. In his announcement of the award to the faculty, Dr. Robert Martin, Vice President of Academic Affairs stated, "Tom's teaching reflects a passion and love for mathematics and skill in furthering students' abilities to apply their mathematical knowledge to the real world. He is also a successful and prolific scholar, producing 84 publications of various sorts since 1972, including six books." Additional recognitions of Tom include his listing in the 2007 edition of the Great Minds of the 21st Century, published by the American Biographical Institute, Inc. and the 2008 edition of 2000 Outstanding Intellectuals of the 21st Century by the International Biographical Centre, Cambridge, England.

**Lyndon State College** (reporter **Kevin Farrell**) **Ms. Victoria Green,** Assistant Professor, Mathematics, joins us as a one-year replacement for Dr. **Daisy McCoy** who is on sabbatical. Ms. Green recently completed her M.S. in Mathematics from the University of Vermont. **Ms. Debbie Hughes,** Assistant Professor, Mathematics / Computer Science, has joined the faculty. She holds a M.S. in Computer Science from the New Jersey Institute of Technology. She comes with many years of corporate information technology experience having worked at both AT&T and Verizon Wireless; most recently, she has been employed by the St. Johnsbury School and St. Johnsbury Academy.

**UMass-Boston** (reporter **John Lutts) John Lutts** has retired as of May 31, 2007.

**University of New Haven** (reporter **Thurman Whitley)** The University of New Haven Department of Mathematics welcomes **Dr. Maryam Vulis** as a Lecturer in Mathematics. Dr. Vulis has a Ph.D. from CCNY and Master's degrees from CCNY in Computer Science and in Mathematics. Her B.A. degree is from Drogobych State Pedagogical Institute, Ukraine. Her research interests are in the History of Cryptography. In addition to teaching and research, she is helping UNH develop our new Mathematics Education concentration. When not working, she enjoys chess (her son is an accomplished competitive chess player) and practicing her digital photography skills.

**Salem State College** (reporter **Mary Platt**) **Reva Kasman** joins us as an assistant professor after several years at Grand Valley State University. Her mathematical interests include computational geometry (with a focus on paper folding) and geometric group theory. Martha L. Hunt received funding to continue Project Salem, a comprehensive three-year professional development plan at Salem State College partnered with Lynn, Salem, Everett, Malden, Gloucester, Danvers, Haverhill and Hamilton-Wenham public schools to respond to the increasing demands in North Shore communities for well-trained and licensed Mathematics teachers at the middle school level.

**Saint Michael's College** (reporter **George Ashline**) Saint Michael's College is hosting the Spring 2008 NES-MAA meeting on F May 30 and S May 31st. Please save the date and be on the look out for more information about the conference later. We hope to see many section members in Vermont at the end of May! We have hired **Alex Rogalski**, PhD from University of Connecticut, as a full-time instructor for the current year. **Zsu Kadas** was recently recognized with the college's top faculty service honor, the Norbert A. Kuntz Service Award, in appreciation of her many years of tireless service to the college community as teacher, department chair, committee participant and leader, and moderator of the Faculty Assembly. **Jo Ellis-Monaghan** is on sabbatical for the current academic year, and she has been awarded a funded visiting fellowship from the Isaac Newton Institute in Cambridge, England for the Spring 2008 semester. **George Ashline** was recently promoted to full professor.

**Obituary for George Lang of Fairfield University..... Matthew Coleman**

We are very sorry to announce the passing of Dr. George E. Lang, Jr., Professor of Mathematics at Fairfield University, this past May. Joining the Fairfield faculty in 1970, George held many leadership roles, including serving for many years as Secretary of the General Faculty, and in leadership posts in the national, state and Fairfield University Chapter of the AAUP. Trained as a topologist, George saw the need for qualified computer science professors in the early 1980s, retrained as a computer scientist, and directed Fairfield's first CS Program. He then spent six years as chair of the Department of Mathematics and Computer Science and, during his tenure, a major in CS was introduced.

Reflecting his broad interests, which included acting in community theater, volunteering with the Cub Scouts and being a soccer coach and referee, George organized a Renaissance Lecture Series at Fairfield. He was what we encourage our students to be - well-rounded, passionate about their beliefs and generous in their concern for others.

George is survived by his wife, Mary-Beth Lang, and his two children, Kenyon Lang and Susan Q. Lang.

**Northeastern Section NExT at Fall Meeting……Lisa Humphreys**

The Northeastern Section is continuing a Section NExT program for new and relatively new colleagues at this year's Fall meeting. By providing talks and workshops on issues of interest, opportunities to meet and share ideas with other new colleagues, and an introduction into Section activities, we hope to assist new faculty in their transition from graduate school to professional academic life. We welcome all untenured full time faculty, both those who have and have not been National NExT fellows.

**Friday, November 16, 2007 Northeastern Section NExT Program**
**12 PM - 1 PM Lunch**
**1 PM - 2 PM Communicating Mathematics**
**Joseph Gallian University of Minnesota-Duluth, and MAA President**

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**NES/MAA Award for Distinguished College/University Teaching of Mathematics**
Here is information on the award. This year, Jason Moliterno will be in charge of the award committee. His contact information is:

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There is no packet of forms to fill out in order to make nominations for the 2008 Northeastern Section of the Mathematical Association of America (NES/MAA) Award for Distinguished College or University Teaching of Mathematics: you create the nomination packet with various letters written by those familiar with the candidate's teaching/research/publications. The eligibility and nomination requirements as well as some hyperlinks to help you in creating the nomination packet are listed below.

The eligibility requirements are

- college or university teachers who currently teach a mathematical science at least half-time during the academic year in a public or private college or university in the United States or Canada (those on approved leave (sabbatical or other) during the academic year in which they are nominated qualify if they fulfilled the requirements in the previous year),
- at least five years experience in teaching a mathematical science, and
- has membership in the Mathematical Association of America and is teaching in the Northeastern Section,

and the nomination requirements,

- widely recognized as extraordinarily successful in his/her teaching,
- has teaching effectiveness that can be documented,
- has influence in teaching beyond his/her own institution, and
- fosters curiosity and generates excitement about mathematics in students.

Nominations for the *2007 NES/MAA Award for Distinguished College of University Teaching of Mathematics* are due in January of 2008, and the winner of the Section's award for distinguished teaching is then nominated for the Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics. General information for the distinguished teaching as well as a list of past recipients of the award can be found on the Sections Awards page of the NES/MAA web site, http://fileserver.wheatonma.edu/tratliff/NES/teaching_award.html; more detailed information about the Section award, eligibility, and nomination process can be found on the MAA website, http://www.maa.org/Awards/CFN_Template.html. Information about the

nomination process as well as about the National award can be found on the MAA website,

- http://www.maa.org/Awards/teachingawards.htm
- http://www.maa.org/Awards/Haimo_EGN.pdf (general guidelines/eligibility information)
- http://www.maa.org/Awards/Haimo_NF.pdf (Nomination Form).

The *typed* completed Nomination Form must accompany the nomination packet that you create and nominations should include no more than five letters of recommendation of no more than one page each,

- two letters from present or former students
- two letters from colleagues one of whom could be the department chair, and
- one additional letter from anyone qualified to comment on extraordinary teaching success.

In addition to these letters, the nomination should include a narrative describing the nominee's background, experience, teaching style, special contributions, other teaching awards, evidence of unusual/extraordinary achievement/success in teaching; this narrative should be no more than five double spaced pages. Additional documentation on the nominee's teaching success including but not limited to summaries of peer or student teaching evaluations, comments on teaching, possible increases in the number of undergraduate/graduate degrees in mathematics directly related to the nominee, and student successes in mathematics competitions may be included on no more than three additional pages.

The Nomination Form, http://www.maa.org/Awards/Haimo_NF.pdf contains a note that states that "if the nomination packet significantly exceeds the prescribed limits" then "it will not be eligible for consideration for a national award." Since the nomination packet for the Section award will be forwarded to MAA for consideration for the National award, it is important to consider this caution and not exceed "the prescribed limits."

**The Second NES/MAA Collegiate Mathematics Contest**

(Rob Poodiac is in charge of the Collegiate Programming Con test. You can register and see more information at his site: http://www2.norwich.edu/rpodiac./NESMAA/mathcompetition.html

The information below was taken directly from his site. The deadline for registration is November 2nd. –the editor.)

The Northeastern Section of the Mathematical Association of America will hold its second Collegiate Mathematics Competition on November 16th, 2007 at the Fall Meeting at Framingham State College. This will be a team competition for

undergraduate students open to all colleges and universities of the Section. This will be great fun for first-time competitors as well as competition veterans. It can also be a great warm-up for the Putnam exam, which takes place a couple of weeks after the Collegiate Mathematics Competition. The questions are meant to be stimulating, but not as difficult as those on the Putnam exam.

The competition will take place during the Fall 2007 Section Meeting at Framingham State College in Framingham, MA, on ***Friday, November 16th from 3:00 to 5:00 p.m***. The competition stands at the center of a great day for students at the meeting, including opportunities to hear accessible talks by student speakers afterward and, if desired, a banquet and after-dinner talk.

You can click the links above to see the official rules, some practice problems, and the questions and solutions for the inaugural competition. You can also look at the old practice problems, as well as register online (via an Adobe Reader form).

Winning teams will be announced and prizes awarded after the banquet. Prizes include copies of Mathematica for Students (courtesy of Wolfram Research) and $100 for the winning team, $75 for the second place team, and $50 for the third place team.

**Call for Undergraduate Student Papers**

Undergraduate students from the Northeastern Section are invited to present talks at the fall meeting on topics in mathematics, statistics, or computer science. The presentations should be 10 minutes in length, on expository work, research projects, employment experiences, or problems from mathematical periodicals. The registration fee and cost of meals will be waived for one student presenter per paper. Interested students should submit the title of the presentation with an abstract of no more than 80 words together with full name, email address, mailing address, college/university affiliation, indication of desire to attend the Friday Banquet, the Saturday lunch or both, and the name and email address of a faculty sponsor to Karen Stanish, kstanish@keene.edu, or Raimundo Kovac, rkovac@ric.edu. The deadline for submission is November 2, 2007.

**Call for Contributed Papers**

Participants at the Fall and Spring Meetings of the section are invited to submit contributed papers. We are particularly interested in papers which will appeal to a variety of participants. If you are planning to speak about results of your

research, keep in mind that the audience most likely will not be familiar with your specialty, so you will want to give some motivation and context for your work. Your presentation should be approximately 15 minutes in length.
Please send an abstract and your mailing address together with a list of any special equipment you may need to Rob Poodiack at rpoodiac@norwich.edu. E-mail submissions are preferred, but you may also send a typed submission to Rob Poodiack; Department of Mathematics; Norwich University; 158 Harmon Drive; Northfield, VT 05663
The deadline for submission of abstracts for the Fall 2007 Meeting is Friday, November 2, 2007.

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**Call for Graduate Student Papers**

Graduate students, full-time and part-time, are invited to present papers on topics in mathematics, statistics, or computer science. Graduate students at any stage of their graduate work are welcome to give a presentation during the session. The presentations, approximately fifteen (15) minutes in length, can be given on expository work, research projects, variations on intriguing proofs, interesting problems in mathematics, work derived from periodicals, employment experiences, summer/independent research experiences, or parts of or work related to Master's or Doctoral research projects. The registration fee and the cost for Saturday lunch will be waived for one graduate student presenter per paper. Interested graduate students should submit the title of the presentation with an abstract of no more than 100 words together with full name, college/university affiliation, contact information (phone number, fax number, and email address), audio-visual/technology needs for the presentation, the name of a faculty sponsor, and full contact information and affiliation for the faculty sponsor to Sarah Mabrouk, smabrouk@frc.mass.edu; please use "NES/MAA Graduate Student Paper Session - Submission" for the subject line. The deadline for submission is Friday, November 2, 2007.

**Call For New Colleagues Talks**

New faculty participating the Northeastern Section Fall MAA meeting are invited to submit papers for the New Faculty session. The purpose of these talks is to introduce you to the section. These talks should focus on either your research or pedagogical activities. If you are giving a talk on your research, please remember that there will be people in the audience that are unfamiliar with your research area so it might be helpful to give some background and motivation. Your presentations should be approximately 15 minutes in length. Overhead projectors and computers with projection capabilities will be available.
Please send a 25 word or less abstract, any special equipment needs you may

have and your mailing address to Phil Hotchkiss at photchkiss@wsc.ma.edu or Chris Aubuchon at aubuchoc@badger.jsc.vsc.edu. Email submissions are preferred, but you may also send a typed submission to Phil Hotchkiss; Department of Mathematics; Westfield State College; Westfield, MA 01086 or to Chris Aubuchon; Department of Mathematics; Johnson State College; 337 College Hill; Johnson VT 05656. The deadline for submission of abstracts is Friday, November 2, 2007.

# FRAMINGHAM STATE COLLEGE, FRAMINGHAM, MA

## 52ND FALL MEETING OF NES/MAA

**Friday, November 16, 2007 Northeastern Section NExT Program**

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|---|---|
| 12 PM - 1 PM | **Lunch** |
| 1 PM - 2 PM | **Communicating Mathematics**<br>Joseph Gallian University of Minnesota-Duluth<br>and MAA President<br>**NES/MAA 52nd Meeting** |

**Friday, November 16, 2007**

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| 2:30 - 6:00 pm | **Registration**<br>Athletic and Recreation Center (ARC), Lobby |
| 2PM - 3 PM | **Executive Committee Meeting**<br>President's Conference Room, ARC |
| 3 PM - 5 PM | **Refreshments**<br>ARC, Lobby |
| 3 PM - 4:50 PM | **Student Problem Solving Competition** |
| 3 PM - 3:50 PM | **Engines of Access: Toward a New Era of Mathematics A Achievement in Urban High Schools**<br>Robert Case, Northeastern University Dwight Hall(DH), Auditorium |
| 4 PM - 4:50 PM | **Reaching Students in the Digital Age**<br>Thomas Banchoff, Brown University, DH Auditorium |
| 5 PM - 5:50 PM | **Student Papers** |
| 6:00 - 6:30 pm | **Reception with cash bar and hors d'oeuvres**<br>Hosted by the Development and Alumni Relations Office, Framingham State College<br>McCarthy's, College Center |
| 6:30 PM - 8 PM | **Banquet**<br>Forum, CC |
| 8 PM - 8:10 PM | **Opening Remarks**<br>DH Aud. |
| 8:10 PM - 9 PM | **Christie Lecture:**<br>**Using Mathematical Maturity to Shape Our Courses, Our Curriculums and Our Careers**<br>Thomas Garrity, Williams College |

**Saturday, November 17, 2007**

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| 8:00 – NOON | **Registration**<br>ARC, Lobby |
| 8:00 - 8:50 AM | **Workshop: Research by Undergraduates is Hot!**<br>Joseph Gallian, University of Minnesota Duluth<br>**Graduate Student Paper Session**<br>**New Colleagues Paper Session**<br>**Contributed Paper Session**<br>**Panel Discussion**<br>**"I am the Teacher Now: Advice to Future Teachers"** |
| 9:00 - 9:50 AM | **Chaos in the Classroom**<br>Robert Devaney, Boston Universtiy, |
| 10:00 - 10:30 AM | **Break** |
| 10:30 - 11:20 AM | **Symmetry - Some Personal Reflections**<br>Kenneth I. Gross, University of Vermont |
| 11:30 AM - NOON | **Business Meeting** |
| 12:00 - 1:00 PM | **Lunch** |
| 1:00 - 1:50 PM | **Challenging Your Students to Do Their Best**<br>Carl Cowen, Indiana University , Purdue University at .....<br>Indianapolis |

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|---|---|
| 2:00 - 2:50 PM | **The Many Names of (7,3,1)**<br>Ezra Brown, Virginia Polytechnic Institute and State University |
| 3:00 - 3:50 PM | **Workshop: The Soap Bubble Geometry Contest**<br>Frank Morgan, Williams College<br>**Workshop: Elementary School Teachers as Mathematicians**<br>Kenneth I. Gross, University of Vermont<br>**Workshop:-TBA**<br>P. Joseph McKenna, University of Connecticut<br>**Panel Discussion: What Can I Do With A Mathematics . Major?"** |

## Abstracts/Biographies

**Title:** Reaching Students in the Digital Age
**Speaker:** Thomas Banchoff, Brown University
**Abstract:** Reaching students has always been a mark of teaching effectiveness. How have things changed over the years and how does the Internet make it possible to rise to new levels
**Bio:** Dr. Thomas Banchoff received his BA from the University of Notre Dame in 1960 and his Ph.D. in 1964 from the University of California at Berkeley under the direction of Shiing-Shen Chern. He was a Benjamin Peirce Instructor at Harvard from 1964 - 1966 and a Fulbright post-doctorate fellow at the University of Amsterdam 1966 -1967 before his appointment to the faculty at Brown University in 1967.
Dr. Banchoff's numerous awards for teaching, include the 1995 NES/MAA Award for Distinguished College or University Teaching of Mathematics, the 1996 Deborah and Franklin Tepper Haimo Award for Distinguished College or University of Mathematics, and the 1998 RI Professor of the Year from the Carnegie Foundation for the Advancement of Teaching. Most recently, Dr. Banchoff received the 2004 Director's Award for Distinguished Scholars from the National Science Foundation – he is one of eight to receive this award, the NSF's highest honor for excellence in teaching and research.
Known for his pioneering research on the geometry of the fourth and higher dimensions, Dr. Banchoff is the author of more than eighty research articles and three books, Beyond the Third Dimension, Linear Algebra Through Geometry, and Cusps of Gauss Mappings, as well as a new introduction to Flatland. His 1978 film, "The Hypercube," won the Prix de la Recherche Fondementale at the Brussels Festival of Scientific and Technical Films. He is the founding editor of the electronic journal Communications in Visual Mathematics and past President of the Mathematical Association of America.

**Title:** The Many Names of (7,3,1)
**Speaker:** Ezra Brown, Virginia Polytechnic Institute and State University
**Abstract:** (7,3,1) is a magical mathematical object with connections to finite geometry, combinatorial designs, graph theory, matrix algebra, number theory, abstract algebra, map coloring on the torus, error-correcting codes, the octonion

units, Klein's Quartic Curve, and the Seven Hats Problem. The speaker promises not to talk about all of them.There will be audience participation.
**Bio:** Ezra (Bud) Brown has degrees from Rice and Louisiana State, and has been at Virginia Tech since 1969, where he is currently Alumni Distinguished Professor of Mathematics. His research interests include number theory and combinatorics, and he particularly enjoys discovering connections between apparently unrelated areas of mathematics. He received Virginia Tech's W.E.Wine Teaching Excellence Award in 1998 and his MAA MD-DC-VA section's award for outstanding university teaching in 1999. He has received the MAA's Polya (in 2000, 2001 and 2006) and Allendoerfer (in 2003) Awards for noteworthy expository papers. He enjoys singing (everything from grand opera to rock'n'roll), playing jazz piano, and working with students who are engaged in research. He occasionally bakes biscuits for his students.

**Title:** Engines of Access: Toward a New Era of Mathematics Achievement in Urban High Schools
**Speaker:** Robert Case, Northeastern University
**Abstract:** The study of advanced mathematics in high school is the central predictor of college success (Adelman; 1999, 2006). Yet urban high school students have historically been unable to access advanced mathematics. These schools have a high percentage of minority, new immigrant, and low-income students. Fortunately, urban schools are now poised for reform and renewal around this reality. But central to the restructuring is the collaboration of colleges and universities. To do this, colleges need to re-configure themselves as authentic agents of outreach. This outreach includes the areas of curriculum, teacher preparation, professional development, campus programming for high school students, AP support, and building the bridge to college.
**Bio:** Robert Case is Professor of Mathematics Education at Northeastern University. He received a PhD in mathematics from Yeshiva University, where his doctoral dissertation in logic was mentored by Martin Davis.
For the past twenty years he has been involved with equity in mathematics education in the cities. He has had a SUMMA grant from the MAA, an NSF grant for calculus reform outreach to the schools, and, most recently, a five-year Nellie Mae Foundation grant to promote AP calculus success among minority students at John O'Bryant High School in Boston. He has written about secondary school mathematics in the United States, in India and in the Netherlands.
Robert Case has received the 2001 Northeastern University Outstanding Teacher of First Year Engineering Students Award, the 1986 Northeastern University Excellence in Teaching Award, the 1998 Northeastern Section of the 1999 MAA Distinguished Teaching Award, and the Haimo Award of the MAA.

**Speaker**: Carl Cowen, Indiana University - Purdue University at Indianapolis
**Title:** Challenging Your Students to Do Their Best

**Abstract:** We all want our students to learn as much as possible in our courses, and we're willing to help them do so. But how can we help them? This presentation will address several of the pertinent issues related to the question, including meeting the students where they are, raising expectations, challenging yourself, and teaching for your students' futures. Some of the ideas will be illustrated by mentioning some techniques that I've used in my own teaching, especially teaching linear algebra.
**Bio:** Carl Cowen, a member of the IUPUI mathematics faculty, is a native of Indiana, was educated at Hanover College, Indiana University, Bloomington, University of Warwick (England), and received his PhD in theoretical mathematics from the University of California, Berkeley. After holding teaching positions in junior high school, small colleges, and a post doctoral position at the University of Illinois at Urbana-Champaign, he was a member of the mathematics faculty at Purdue University, West Lafayette, from 1978 to 2004. Cowen was Director of Purdue's Actuarial Science Program from 1992 to 1997 and was Head of Purdue's Mathematics Department from 1997 to 2002. He served as Dean of the IUPUI School of Science from 2004 to 2006. Cowen was honored for his success in teaching by the Purdue University School of Science, the Indiana Section of the MAA in 1995, and received the MAA's Haimo Award for Distinguished Teaching in 1997.
Professor Cowen's primary pedagogical interests have been in linear algebra, in the use of technology, and in the preparation of high school mathematics teachers. He has directed more than 30 undergraduate students in research, mostly on topics in linear algebra. In addition, he has supervised eleven PhD students and several post doctoral faculty. For many years, Cowen's primary research interests have been in operator theory and complex analysis, but in the past few years he has devoted some of his research and pedagogical attention to applications of mathematics to biology, especially to neuroscience. In addition to his academic work, Cowen has been involved in the governance of each of MAA, AMS, and SIAM, and is currently finishing his terms as Past President of the Mathematical Association of America and Past President of the recently organized SIGMAA on Mathematical and Computational Biology.

**Speaker:** Robert L. Devaney, Boston University
**Title:** Chaos in the Classroom
**Abstract:** In this talk we will describe various ways that we bring contemporary topics in mathematics (usually involving chaos or fractals) into the introductory level calculus, differential equations, and even lower level courses. The idea is to show students that mathematics is an alive and exciting discipline. As a subtheme, all of the ideas will be presented using spreadsheets. The advantage of this is that all of my students know how to use spreadsheets already, so no time is wasted getting them up to speed to do their labs on these subjects. Furthermore, spreadsheets are an ideal tool to animate various graphical objects.
**Bio:** Robert L. Devaney is Professor of Mathematics at Boston University. He received his BA from Holy Cross College in Worcester, MA in 1969 and his

PhD from the University of California at Berkeley in 1973 under the direction of Stephen Smale. He taught at Northwestern University and Tufts University before coming to Boston University in 1980.
Dr. Devaney is renown for his teaching and his research, and he has won numerous awards for his teaching and for his innovations in teaching mathematics. In 1994, he received the Award for Distinguished College/University Teaching of Mathematics from the Northeastern Section of the Mathematical Association of America. In 1995, he was the recipient of the Deborah and Franklin Tepper Haimo Award for Distinguished College/University Teaching. In 1996, he was awarded the Boston University Scholar/Teacher of the Year Award. In 2002, he received the National Science Foundation Director's Award for Distinguished Teaching Scholars. In 2002, he received the ICTCM Award for Excellence and Innovation with the Use of Technology in Collegiate Mathematics. In 2003, he was the recipient of Boston University's Metcalf Award for Teaching Excellence. In 2004, he was named the Carnegie/CASE Massachusetts Professor of the Year.
He is the author or co-author of several books on various aspects of dynamical systems theory. These include "An Introduction to Chaotic Dynamical Systems", a text for advanced college students in mathematics, as well as researchers in this field. He has also produced the Mandelbrot Set Explorer, an online, interactive series of explorations designed to teach students at all levels about the mathematics behind the interesting images known as the Mandelbrot and Julia sets.

**Workshop:** Research by Undergraduates is Hot!
**Speaker:** Joseph Gallian, University of Minnesota Duluth
**Abstract:** Although involving undergraduates in research has been a long standing practice in the experimental sciences, it has only been recently that undergraduates have been involved in research in mathematics in significant numbers. In this talk I will discuss in general terms such things as the reasons for this dramatic growth, how to get started in involving undergraduates in research, the benefits of undergraduate research to faculty and students, and how to find suitable research problems.
**Bio:** Joe Gallian received a Ph. D. from Notre Dame in 1971. He has been at the University of Minnesota Duluth since 1972 where he is a Morse Alumni Distinguished University Professor of Teaching. Among his honors are the MAA's Haimo Award for distinguished teaching, the MAA Allendoerfer and Evans awards for exposition, an MAA Polya Lecturer, a term as MAA Second Vice President, co-director of the MAA's Project NExT, associate editor of the American Mathematical Monthly and the Mathematics Magazine, advisory board member for Math Horizons, and the Carnegie Foundation for the Advancement of Teaching Minnesota Professor of the Year in 2003.
Since 1977 over 130 research papers written under his supervision by undergraduates in his summer research program have been published in mainstream journals. He has given more than 250 invited lectures at conferences

and colleges and universities and is the author of more than 100 articles, the book "Contemporary Abstract Algebra" (6th edition) and coauthor of the book "For All Practical Purposes" (7th edition). His research interests include groups, graphs and combinatorics.
Besides the usual math courses, he has taught a Humanities course called the "The Lives and Music of the Beatles" for more than 25 years and a liberal arts course on math and sports. In 2000 a Duluth newspaper cited him as one of the "100 Great Duluthians of the 20th Century."

**Title:** Christie Lecture: Using Mathematical Maturity to Shape Our Courses, Our Curriculums and Our Careers
**Speaker:** Thomas Garrity, Williams College
**Abstract:** For the last years, I've been in charge of mentoring new Williams faculty, from in all departments. I've been surprised to learn that no other discipline that I know of has a term analogous to our "mathematical maturity". This talk will discuss how we can build on the rhetoric of mathematical maturity to shape not only our teaching and research careers but also the workings of our departments.
**Bio**: Thomas Garrity was an undergraduate at the University of Texas in Austin, a graduate student at Brown and a post-doc at Rice. He then joined the faculty of Williams in 1989, where his has been ever since, save for sabbaticals spent at the University of Washington in Seattle and the University of Michigan in Ann Arbor. Currently at Williams, he is the William R. Kenan Jr. Professor of Mathematics, department chair and the director of the Williams College Project for Effective Teaching (Project PET). His research has been in algebraic geometry, differential geometry and, more recently, number theory. He is the author of *All the Mathematics You Missed [But Need to Know for Graduate School]* and appears, against Colin Adams, in the MAA DVD *The Great Debate: Which is the Better Number?*, moderated by Edward Burger. Among his honors is the 2004 Deborah and Franklin Tepper Haimo Award for Distinguished College or University of Mathematics.

**Title:** Symmetry - Some Personal Reflections
**Speaker:** Kenneth I. Gross, University of Vermont
**Abstract:** We will explore the concepts of symmetry and invariance in an expository style suitable for undergraduates, K-12 teachers, college and university mathematics faculty, and even non-mathematicians who are willing to practice inner tranquility when a formula comes up now and then. Starting with a potpourri of examples of symmetry in nature, art, architecture, poetry, and science, we will discuss rotational symmetry from its historical ori-gins in astronomy to the modern mathematical point of view, and the way in which symmetry considerations enter into present day cosmological speculation.

**Workshop**: Elementary School Teachers as Mathematicians

**Speaker:** Kenneth I. Gross, University of Vermont
***Question***: Why should college or university mathematics faculty care about the teaching and learning of mathematics in the elementary grades?
***Commentary***: There is nothing "elementary" about the mathematics taught in the elementary grades. Fluency in arithmetic is the gatekeeper for success in higher mathematics. In essence, the elementary teacher has as much, or more, to do with the student's success in college or university mathematics courses as the instructors in those courses.
***Question***: Why might a mathematician consider becoming involved in the teaching and learning of mathematics in the elementary grades?
***Commentary***: The principle "one can not teach what one does not know" is nearly as secure as a law of nature. Yet, since the appearance of the NCTM "Standards" in 1989, we have required elementary teachers to teach mathematics that they do not know at a level of depth to which they had never been exposed in their own education. Mathematicians, in collaboration with educators, can help close the gap between the insufficient mathematics training of elementary teachers and the demands of the contemporary K-6 mathematics classroom. The content of this workshop is based on a program, the Vermont Mathematics Initiative (VMI) that has succeeded in doing so.
***About the mini-workshop:*** The VMI, established in 1999, is founded on the belief that mathematics knowledge is prerequisite to enhanced pedagogy and higher student achievement. In this workshop we will first review the VMI design, curriculum, and outcomes. Then, in a participatory fashion, we will explore strategies for transforming elementary teachers – many of whom are ill-prepared in and fearful of mathematics, and do not find teaching mathematics a pleasant experience – into mathematicians who are enthusiastic about teaching mathematics. Along the way, we will discuss implications for teaching mathematics to college students in general.
**Bio**: Kenneth I. Gross is a distinguished mathematician who has had a profound impact on mathematics, education, and the lives of his students. Ken's teaching and mentoring have been inspirational for all levels of students, from high school students, to entry level college students, undergraduate mathematics majors and graduate students who are now accomplished mathematicians, elementary and middle school teachers, and adult learners who desire to further their education. Ken is the 2007 recipient of the NES/MAA Award for Distinguished College or University Teaching of Mathematics. He has also received the Chauvenet Prize and the Lester R. Ford Prize from the MAA.
As a mathematician, Ken's research in the areas of Lie groups, representation theory, and harmonic analysis was supported by the National Science Foundation for over three decades before his interests turned to the mathematics training of teachers. In 1993, Ken and a high school teacher co-founded a residential summer enrichment program for talented Vermont high school students that is still thriving today as the Vermont "Governor's Institute in the Mathematical Sciences." In 1999, Ken founded the Vermont Mathematics Initiative (VMI), is a statewide master's degree granting program that trains K-8

teachers across the state of Vermont to serve as mathematics leaders in their schools and districts. Other programs modeled on VMI and utilizing VMI designed materials have been introduced in Arkansas, Massachusetts, Nebraska, and New Mexico.
Ken is currently Professor of Mathematics and Education at the University of Vermont, where he has received the university's highest awards in both research and teaching.

**Workshop:** Out of The Mouths Of Babes And Sucklings: What We Learned From Third Semester Calculus Students
**Speaker:** P. Joseph McKenna, University of Connecticut
**Abstract:** For the last several years, Fabiana Cardetti and I have been teaching a quasi-experimental writing course at University of Connecticut, in which a small self-selected group or third-semester calculus students write a weekly journal reflecting on their experiences in their respective sections. The topics of the week vary and can range from simple things like preparing for exams to more mathematical thought problems. I will discuss some of what we learned over several semesters. At the end, we can brainstorm for other suitable weekly topics.
**Bio:** Joe McKenna was born in Dublin in 1948 and did his undergraduate work in University College, Dublin. He then completed his Ph.D. under Lamberto Cesari at the University of Michigan. His research is mainly in nonlinear partial and ordinary differential equations and especially their periodic solutions. Much of his recent work concerns large nonlinear oscillations in suspension bridges. This has been covered in many science magazines such as Discover, Science News, Inventions and Technology as well as several undergraduate textbooks on differential equations. He described some of this in a Monthly article in 1999, for which he received the Lester Ford Prize at Mathfest 2000. Having previously worked in the Universities of Wyoming and Florida and University College, Cork, he is currently Professor of Mathematics at the University of Connecticut. He is the winner of the 2004 NES/MAA Award for Distinguished College or University Teaching of Mathematics. He is identified by the Science Citation Index as a highly cited researcher in mathematics, at www.isihighlycited.com. He was also quoted in William Safire's weekly column on language in the New York Times magazine.

**Workshop:** The Soap Bubble Geometry Contest
**Speaker:** Frank Morgan, Williams College
**Abstract:** In response to the concern that teaching often provides the answers before students have the questions, I decided to prepare a talk in the form of a guessing contest in which students had to face the questions before seeing the demonstrations and explanations. Each question about soap bubbles was designed to get at some important geometric idea, and the soap bubble demonstrations add to the fun. But I won't just talk about it: I'll do it for you

today. The show starts with some math news, including some advances by undergraduates.
**Bio:** Frank Morgan studies optimal shapes and minimal surfaces. He has published over 100 articles and six books, including "Calculus Lite" and "The Math Chat Book," based on his live, call-in TV show and column. His teaching awards include the Baker Award at MIT, the 1992 MAA Northeastern Section Award Distinguished College or University Teaching of Mathematics, and the 1993 Deborah and Franklin Tepper Haimo Award for Distinguished College or University of Mathematics. Founder of the NSF "SMALL" Undergraduate Research Project, he is Atwell Professor of Mathematics at Williams College.

**Student Panel Discussion:** What Can I Do With A Mathematics Major?
**Abstract:** Mathematics is fun and intellectually stimulating to study. Studying mathematics helps one to develop skills that will be beneficial in the workplace. Join area college graduates and college students for a panel discussion of the benefits of a mathematics major workplace.

**Student Panel Discussion:** I am the Teacher Now: Advice to Future Teachers
**Abstract:** Are you planning to be a teacher? Are there any courses beyond those required for your degree that you should consider taking? Are there things that you can do now to help you to feel more prepared and more confident when you begin teaching? Join area teachers as they share their advice to future teachers. Find out what it is like to be the teacher from 2007 college graduates who are teaching for the first time as well benefit from lessons learned by those who have been teaching for several years.

## Hotel Information

Lodging for the meeting will available at hotels in Framingham (Best Western, Econo Lodge, Residence Inn by Marriott, and Sheraton) and in Natick (Courtyard by Marriott, Crowne Plaza, Hampton Inn, and Travelodge). Each hotel is offering a special meeting rate for those who call and make reservations; to get the special meeting rate, please use the code listed as well as make your reservation by the cut-off date. In general, reserved room blocks will be held until the listed cut-off date. However, room blocks for which reservations are not being made may be
released if event reservations are not being made and if hotels need the rooms. It is best to make reservations as early as possible. The Hampton Inn (10/25/07) and the Residence Inn by Marriott (10/26/07) have the earliest cutoff dates; Travelodge, Best Western, Sheraton, Courtyard by Marriott, and Crowne Plaza all have a cut-off date of
11/03/07. You can ensure that your room will be held by making your reservations using a credit card. You must add state and local taxes, currently 9.7%, to the nightly room rate.
**Travelodge** (1350 Worcester Road, Natick, MA 01760, Phone: (508)655-2222,

Fax: (508)655-7953) Rate: $59.99 per night for 1 bed; $69.99 per night for 2 double beds; $75.99 per night for 2 queen beds; 20 rooms on hold; Cutoff Date: 11/03/07; Code: NES/MAA; Cancellation Policy: 4 PM day of arrival; Check in: 3 PM; Check out: 12 PM

**Econo Lodge** (1186 Worcester Road, Framingham, MA 01701, Phone: (508)879-1510, Fax: (508)875-2686) Rate: $64.99 per night; 20 rooms on hold; state whether you want a smoking or nonsmoking room when you make reservation; in order to get this rate, you must state that you are with the *Framingham State College Math Meeting* at the time you make reservation; Cancellation Policy: 24 hours prior to arrival; Check in: 3 pm; Check out: 11 am.

**Best Western** (130 Worcester Road, Framingham, MA 01702, Phone: (508)872-8811, Fax: (508)875-4136) Rate: $79.00 per night for 1 bed; $89.00 per night for 2 beds; 20 rooms on hold; Cut-off Date: 11/03/07; Code: NES/MAA; Cancellation Policy: 4 PM day of arrival; Check in: 2 PM; Check out: 11 AM

**Sheraton Framingham Hotel** (1657 Worcester Road, Framingham, MA 01701, Phone: (508)879-7200, Fax: (508)875-7593) Rate: $99 per night; 20 rooms on hold; Cut-off Date: 11/03/07; Code: NES/MAA;
Cancellation Policy: 2 PM day of arrival; Check in: 3 PM; Check out: 12 PM

**Hampton Inn Boston/Natick** (319 Speen Street, Natick, MA 01760, Phone: (508)653-5000, Fax: (508)650-9298)
Rate: $105 per night includes full hot breakfast buffet and high-speed wireless internet; 20 rooms on hold (standard King, non-smoking); Cut-off Date: 10/25/07; Code: NES/MAA; Cancellation policy: 6 PM twenty-four (24) hours prior to night of arrival; Check in: 3 PM; Check out: 12 PM

**Courtyard by Marriott** (342 Speen Street, Natick, MA 01760, Phone: (508)655-6100, Fax: (508)655-6104) Rate: $109 per night (5 King bed; 5 double Queen bed); 10 rooms on hold; Cut-off Date: 11/03/07; Code: NES/MAA; Cancellation Policy: 6 PM night of arrival; Check in: 3 PM; Check out: 12 PM

**Crowne Plaza Boston-Natick** (1360 Worcester Road, Natick, MA 01760, Phone: (508)653-8800, Fax: (508)653- 1708) Rate: $109.00 per night; 20 rooms on hold; Cut-off Date: 11/03/07 by 5 PM; Code: NES
Cancellation Policy: 6 PM night of arrival; Check in: 3 PM; Check out: 12 PM

**Residence Inn by Marriott** (400 Staples Drive, Framingham, MA 01702, Phone: (508)370-0001, Fax: (508)370- 0440) Rate: $119.00 per night includes complimentary "Hometouch" breakfast buffet daily high-speed internet; 10 rooms on hold; Cut-off Date: 10/26/07; Code: NES/MAA; Cancellation Policy: 4 PM night of arrival; Check in: 3
PM; Check out: 12 PM

## Campus Map

For a campus map, access http://www.framingham.edu/buildings.htm.

## Directions
## (from http://www.framingham.edu/directions.htm}

. **From the Massachusetts Turnpike (I-90):**
Take Exit 12, follow Rt. 9 East two miles to the Edgell Rd.-Main St., Framingham Exit; Take your first right onto State Street and the Framingham State Campus.

**From I-95 (Route 128):**
Take Exit 25 to the Massachusetts Turnpike (I-90) West, and
follow the directions above.

. **From Route 495:**
Take Exit 22 to the Massachusetts Turnpike (I-90) East, and
follow the directions above.

. **From Route 9 East**
Take the Edgell Road/Main Street, Framingham Exit; take your first right onto State Street and the Framingham State College Campus.

. **From Route 9 West**
Take Framingham Center/Edgell Road exit (stay in the middle lane), turn left at intersection/lights to cross the Rte 9 overpass (stay in the right-hand lane), take first right onto High Street, take the first left onto State Street and the Framingham State College Campus.

## Parking

Parking for the meeting will be available in the Maple Street Lot and in the Maynard Street Lot. To park on-campus, you will need a parking permit. When your registration is received, a parking permit and an on-campus parking map will be sent to you in the mail; this parking permit is valid only for parking in the Maple Street and Maynard Street lots. A shuttle bus will be pick up people from the Maple Street Lot and take them to the center of Campus in front of May Hall approximately every 10 to 15 minutes. Since Framingham State College is on a hill, there is an incline on the walk from each parking lot to the center of campus. The walk from the Maynard Street Lot to campus is steeper than the walk from the Maple Street Lot to campus. Special needs/circumstance parking will be available for those who must park closer to campus. Please contact Sarah Mabrouk to make arrangements for special needs/circumstance parking.

## About Framingham State College
## (from: http://www.framingham.edu/about_fsc.htm)

Framingham State College offers small, personalized classes to undergraduate and graduate students on a traditional New England campus. The public college prides itself on its friendly, family-style community.

Student success is central to the mission of the college. Many options are available for student support, including programs to help freshmen transition to college. The college also has a well-developed honors program for exceptional students.

When students are asked why they chose to attend Framingham State College, they mention its outstanding academic reputation, interesting course offerings, exciting location, sense of community spirit, and, of course, its affordable cost.

The breadth of programs offered by Framingham State College reflects diverse faculty expertise. Its many undergraduate programs range from Art to Biology to Communication Arts, while graduate offerings include the MBA, MEd, and MS. The college also has undergraduate degree evening programs along with online courses.

**Pre-Registration**

**If you have questions about registration, you can also contact Sarah Mabrouk by phone, (508)626-4785, or by email, smabrouk@frc.mass.edu.**
**Checks should be made to: NES/MAA. Mail this form to :**
**Sarah L. Mabrouk**
**Framingham State College**
**100 State Street, PO Box 9101**
**Framingham, MA 01701-9101**
**Please pre-register! You may register at the meeting if you wish; however, it would help to plan the meeting if you pre-register by mail and it will save you money in that on-site registration fees are five dollars more than pre-registration fees. Also, meals cannot be guaranteed unless reservations are received by Wednesday, November 7, 2007. It may not be possible to buy tickets to the banquet or lunch at the meeting. Spouses and guests are welcome at all meals.**

**PRE-REGISTRATION (please type or print):**
**Name:**
**Name as you want it to appear on your name badge:**
**Affiliation:**
**Address:**

**Telephone:**
**E-mail:**
**Need Parking: (Check all that apply.)**
- ☐ **Friday, November 16, 2007**
- ☐ **Saturday, November 17, 2007**
- ☐ **Special Needs Parking***

***Please contact Sarah Mabrouk to make arrangements for Special Needs Parking.**
**Pre-registration Fee:** **$ _____**
☐ **MAA Member ($25.00)**
☐ **Non-member ($30.00)**
☐ **Student or unemployed ($10.00)**
**Meals**
**Reception and Banquet Friday ($28.00 per person)** **$ _____**
**Luncheon Saturday ($6.75 per person)** **$ _____**
**Total** **$ _____**

**Attending (Check all that apply)**
**Friday, November 16, 2007** ☐
**Saturday, November 17, 2007** ☐
**Participating in Section NeXT** ☐

Frank Ford
Newsletter Editor
Dept of Math/CS
Providence College
Providence, RI 02918

**Workshops (Check all that apply)** **Enrol**

☐ **Research by Undergraduates is Hot! (Joe Ga**
☐ **The Soap Bubble Geometry Contest (Frank I**
☐ **Elementary School Teachers as Mathematici**
☐ **Differential Equations (Joe McKenna)**

**Faculty member at a college or university with h… …offered:**

☐ **Associate** **Bachelors** ☐ **Masters**
☐ **Doctorate** ☐ **Business, industry, government**
☐ **High school teacher** **Undergraduate student**
☐ **Graduate student** **Retired**
☐ **Other (please specify)**

**Please call, (508)626-47**
**smabrouk@frc.mass.ed**
**State College, to pre-re**