

# NEMATYC NEWS

The News is available online at [www.NEMATYC.org](http://www.NEMATYC.org)



Vol 20, No 1

The newsletter of the New England Mathematical Association of Two-Year Colleges

Fall, 2011



## From the President Mary Kehoe Moynihan

Greetings!

I always say that we earn our money the first three weeks of the semester and the last three weeks. (Not that we don't earn it the rest of the time also ☺) Hope your first weeks were hassle-free: no adds/drops, no panicked students who thought TR (for Tuesday/Thursday) stood for Thursday ("I can't have already missed a class!!"), no last minute room changes (once again, "I can't have already missed a class!! I sat in the room for an hour but nobody showed up! And I didn't notice the sign on the door."), no last minute course changes ("Sure, I love to prep with 4 hours notice."). And my all time Fall 2011 favorite, "I'm not going to buy a \$160 book for this class since I didn't want to be in it anyway. THEY put me in it when I failed the placement test." Oh, where should I start? You didn't fail, the custom publishing price is ridiculous, .... And yet, I love it! The excitement of getting to know so many new students and having the chance to work again with some I've known for years.

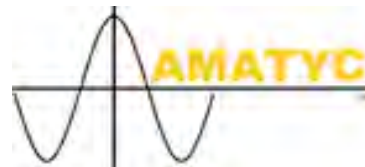
*Continued on page 3*

## From Your AMATYC Northeast Regional Vice President Jane Tanner



NEMATYC Colleagues:

I hope that your year is off to a great start and that if you are not a member of the American Mathematical Association of Two-Year Colleges (AMATYC) that you



consider becoming one! I would like to make you aware of some of the activities that you may participate in as an AMATYC member. The Annual AMATYC Conference, a series of webinars and the AMATYC committees offer many opportunities for you to advance your mathematical knowledge and network with your peers across the United States and Canada. In addition, AMATYC members receive the *AMATYC News* and *MathAMATYC Educator* publications during the year.



*Continued on page 4*

## Announcing NEMATYC 2012 38th Annual Meeting

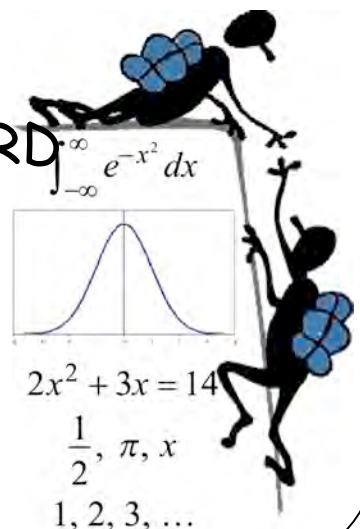
### MATH: CONQUERED IN CONCORD

NHTI-Concord's Community College

31 College Drive  
Concord, NH 03301

Friday and Saturday, March 30-31, 2012

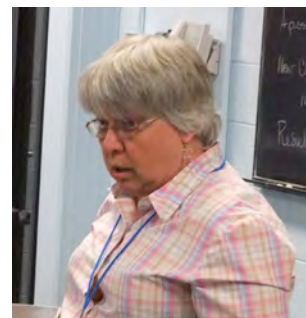
Judy King, Chair  
Call for Presenters Inside



## From the Conference Chair Share With Your Colleagues - We All Win

by Judy King, 2012 Conference Chair

A colleague, attending a NEMATYC conference for the first time, asked me, “Where did NEMATYC get all these great speakers?” He was impressed with both the quality and breadth of the talks. Initially he found it hard to believe we were our own speakers. His question reminded me that when we talk about what we know best, we usually do a pretty good job. We’re knowledgeable. We’re enthusiastic and entertaining. We’re generally willing to share, especially if the other person is willing to give credit where credit is due.



What have you got to offer to your colleagues? Without presenters, we have no conference. Have you insight on working with a particular group of students? Has your method of presenting mathematics borne satisfying results? Are you looking for help in documenting your conjectures? Surely there’s something you do or know that’s worth sharing with our members. This is a good chance to share that idea, that skill, that discovery, that question. How often do we tell our students to ask the question, to share the thought, because it might be just what someone else was thinking but hadn’t yet put it into words?

*Continued on page 3*

### NEMATYC EXECUTIVE COMMITTEE Spring 2011 - Spring 2012

<b>President</b> <b>Mary Kehoe Moynihan</b> 10-12 Cape Cod CC MMoynihan@capecod.edu 508.362.2131 x4471	<b>Vice President</b> <b>Meredith Watts</b> 11-12 MassBay CC MWatts.math@gmail.com 508.270.4264	<b>Past President</b> <b>Carol Henry</b> 10-12 Middlesex CC henryc@middlesex.mass.edu 781.280.3982
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<b>At-Large Member</b> <b>Kenneth Takvorian</b> 11-13 Mount Wachusett CC ktakvorian@mwcc.mass.edu 978.630.9232	<b>At-Large Member</b> <b>Robert Cantin</b> 10-12 MassBay CC RCantin@massbay.edu 508 270.4211	<b>At-Large Member</b> <b>Judy King</b> 10-12 NHTI, Concord’s CC turkcay@comcast.net 603.224.4303
<b>Conference Chair</b> <b>Judy King</b> 11-12 NHTI, Concord’s CC turkcay@comcast.net 603.224.4303	<b>Past Conference Chair</b> <b>Mary Kehoe Moynihan</b> 11-12 Cape Cod CC MMoynihan@capecod.edu 508.362.2131 x4471	<b>Conference Exhibitor Chair</b> <b>Meredith Watts</b> 10-13 MassBay CC MWatts.math@gmail.com 508.270.4264
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*Share with your colleagues—continued from page 2*

Your talk needn't be profound, esoteric, or extremely involved. In fact, we'd probably prefer it isn't! We'd like you to be you, telling us what you know, what you have found to be true, what shapes your reality, what causes you wonder. And since you only have 45 minutes from start to finish, if you figure a few minutes for your presenter to introduce you (with the short biography you provide) and allow, say, 5-10 minutes for questions and comments at the end, you probably have at most 30 minutes to enlighten us, get us to try something, ask for assistance with a pet project.... For most of us, that's shorter than our classes! We'll even provide you with a frame-able, and reproducible, certificate to take back to your school acknowledging your participation and thanking you for your effort!

We're always interested in hearing about teaching techniques, curriculum changes/development, dis-

tance education, assessment, modeling data, connecting with students, new uses for technology, and more we haven't thought about, yet, because you haven't presented it to us. We look for workshops, short seminars, discussion panels, posters, and yes, even lectures!

Plan on joining us at NHTI in Concord, NH. Friday, January 20, 2012, the deadline for early decision submissions will be here before you know it. Send in your proposal now, while you're thinking about it. Electronic submission is encouraged. See the Call for Presenters form elsewhere in this issue of our NEMATYC newsletter.

Judy King  
Conference Chair  
NHTI-Concord's Community College

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*From the President— continued from page 1*

At the conference in April, I'll "retire" from the President's position and move into the past President's position. I really can't believe it will have been two years. I want to make a pitch to all members of NEMATYC. Consider running for a board position – it's a fun group of people who are passionate about teaching and mathematics. There are four meetings a year: one at the conference, and one each in summer, fall, and the winter break.

It was awesome to see you all on the Cape at the conference in April. I want to take a minute to thank my administration for the support they give to NEMATYC – all charges for rooms, maintenance, and tech support were covered by CCCC. I'm truly appreciative that our schools support our work. Look for my short blurb and some fantastic pictures from the conference. (See pages 6 and 10.)

The Executive Board met the last week of September to discuss next spring's conference. Judy King will host NEMATYC 2012 at NHTI-Concord's Community College. The theme will be "Math: Conquered at Concord". If you have ideas for

speakers/workshops that you'd like to see, contact Judy. (See pages 2 and 8.)

The Board also had the pleasure of creating the Lois A. Martin Student Mathematics League Team Award, which will be presented at the annual conference to the school with the highest team score in the league. Lois began NEMATYC's involvement with the AMATYC SML, so we are very excited to add this team award to the \$100 scholarships that we give to the highest scoring student at each participating NEMATYC school. Get your school involved with AMATYC's SML if you don't already have a team. Competing involves having as many test prep sessions as you can (we have one at CCCC, but I know some other schools are more intense), and administering the test once in the fall and once in the spring. For more info, go to <http://www.amatyc.org/SML/> .

If I don't see you before, I look forward to seeing you in Concord in March!

Mary Kehoe Moynihan  
NEMATYC President  
Cape Cod Community College

From the Regional VP – continued from page 1

If possible, please join me in Austin, Texas for the 37<sup>th</sup> Annual AMATYC Conference to be held November 10-13. The miniprogram is available online at <http://www.amatyc.org/Events/conferences/2011Austin/miniprogramAustin2011.pdf>. The theme of this year's conference is *Shootin' for the Stars* and is sure to offer many opportunities for professional development and networking. This year AMATYC has offered a scholarship to each affiliate to offer financial support to a faculty member who has not yet attended an AMATYC conference. If you are a first time attendee to the AMATYC conference, a reception will be held in your honor on Thursday evening, November 10 from 5 until 6 p.m. Our Northeast regional meeting and buffet breakfast will be held on Friday, November 11 from 7:30 until 9:30 a.m. I hope to see each of you there.

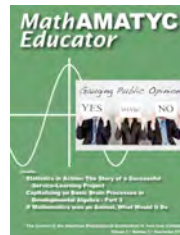
AMATYC has begun a series of free webinars for its members. The first webinar was offered this past February entitled



*Unleash the Power of Your Tablet PC* presented by AMATYC member Fred Feldon. Other webinars on topics of Action Research, Sequence Convergence, Statway and Quantway, Mathematics of Video Games, Wolfram Alpha, The Common Core, Teaching Developmental Mathematics, and Making Calculus Come Alive have been offered and captured for future viewing. If you missed any of these webinars, you can find them on YouTube by going to <http://www.amatyc.org/publications/webinars/index.html> and clicking on the appropriate link. Watch your email for future attractions!

AMATYC has 9 committees: Developmental Mathematics, Division/Department Issues, Innovative Teaching and Learning, Mathematics for AAS Programs, Statistics, Mathematics Intensive/College Mathematics, Placement/Assessment, Teacher Preparation, and Research in Mathematics Education for

Two-Year Colleges. Although the committees meet annually in person at the AMATYC conference, they do most of their work during the year through emails, websites, and Google groups. If one of these areas is of particular interest to you, read more about the committees at <http://www.amatyc.org/committees/>. Contact information for each committee chair is listed on the website.



AMATYC offers two publications to its members: the *MathAMATYC Educator* and the *AMATYC News*. The *MathAMATYC Educator* is a refereed publication of AMATYC. Abstracts of the articles in past issues of the *MathAMATYC Educator* can be found at

<http://www.amatyc.org/publications/mathamatyceducator/>. The AMATYC News

contains articles on teaching, activities used in the classroom, results of grants and hints to help mathematics faculty spend their professional time more productively. An archive of past newsletter articles can be found at



<http://www.amatyc.org/publications/AMATYC-News/>. AMATYC welcomes articles for each of these publications. If you have an article of interest, please be sure to submit it following guidelines available on the web.

If you are already a member of AMATYC, you are well aware of what AMATYC has to offer. If you are not yet a member, I encourage you to visit the website at <http://www.amatyc.org/> and become a member. I hope to see you in Austin!

**AMATYC Regional Vice President**  
**Jane D. Tanner**  
Onondaga Community College  
Syracuse, NY 13215  
[tannerj@sunyocc.edu](mailto:tannerj@sunyocc.edu)

**Have you heard about Wolfram|Alpha?** <http://www.wolframalpha.com>. If not, take a look at what is available to anyone, including our students, to use on-line. It will show the steps you might use to solve a linear or quadratic equation, even literal equations. Enter "solve  $15x-A=9x+B$  for  $x$ " for example. Then ask it "who was leonhard euler?"



## NEMATYC BOARD ANNOUNCES THE

# LOIS A. MARTIN NEMATYC STUDENT MATHEMATICS LEAGUE AWARD

If you have been a NEMATYC member for more than a couple of years, you know that **Lois Martin** practically single-handedly created the current NEMATYC Student Mathematics League.

In this region we had sporadic participation in the AMATYC Student Mathematics League. Lois, at Massasoit Community College, had been running a math league program for years, and so had Springfield Technical Community College (and perhaps others).

It was Lois' regular exhortations for more regional schools to participate in the AMATYC program that got more and more of us doing that. And it was her exhortations at the Executive Committee that led to the current NEMATYC Student Mathematics League, which she has shepherded in its first years. This league now issues a prize each year to the top student at each league school, and a plaque to the top school.

Her efforts have led us from a league of two or three colleges to, last year, twelve! (See Lois' report on page 6.)

Lois retired several years ago, but continued to run the SML for us. Now, she is retiring from these duties as well.

In light of all of this, the NEMATYC Board resolved at its September 23 meeting that the annual recognition of the top school will be called the "**Lois A. Martin NEMATYC Student Mathematics League Award**".

This is not the first recognition of Lois' hard work and accomplishments. Lois was a recipient of AMATYC's national Teaching Excellence Award, in 2007.

Lois was also inducted into the Association of Teachers of Mathematics in Massachusetts (ATMIM) Hall of Fame in 2009.

Most who know Lois also know her husband **Cliff Martin**, a long-time department head and curriculum coordinator at Whitman-Hanson Regional High School. Cliff was an adjunct professor at Massasoit after his retirement, and was president of the Mathematics and Computer Science Collaborative (MACS) at Bridgewater State University for 15 years. Cliff has also been active in many NEMATYC and AMATYC activities as well.



In 2007 Lois was recognized for her excellent teaching when she was awarded the AMATYC Teaching Excellence Award, which is intended to honor AMATYC members whose primary assigned duty is teaching in an associate's degree program.



is a mentoring and professional development initiative for two-year college mathematics faculty. The project's goal is to provide experiences that will help new faculty become more effective teachers and active members of the broader mathematical community.

## Past Conference Chair's Message

Mary Kehoe Moynihan

The spring meeting was a lot of fun for all. We had over 60 people at the casual Friday night beer and pizza event, where we enjoyed a delightful talk on ecotourism by Dick Hilmer of Explore Cape Cod. Our Saturday talk by speedcuber Ian Winokur (Greenfield CC) was equally entertaining. I enjoyed hearing and reading feedback from the sessions. We raised enough money to fund our 2012 AMATYC Student Mathematics League scholarships. See some pics on page 10, and lots more on the web site.

Some conference trivia:

- We had 93 participants from at least nine states (CA, CT, GA, MA, ME, NH, NY, RI, VT) and 15 publisher reps from 9 companies.
- I had no idea there are three Middlesex Community Colleges, and we had mathematics faculty from all three!
- We had two AMATYC past presidents in attendance.
- There was at least one participant for each of the New England States and NY.
- Wanda Garner traveled the furthest – from Cabrillo College in Aptos, CA.

## NEMATYC Student Math League Report

Lois Martin, Student Math League Awards Coordinator

### RECOGNITION AWARD PROGRAM

The purpose of the NEMATYC Student Mathematics League Recognition Award Program is to foster extracurricular mathematics learning opportunities for students through participation in the AMATYC Student Mathematics League. Annually, the top-placing student in the AMATYC SML Competition, in each school in NEMATYC's service area, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, will receive a \$100 Recognition Award.

AMATYC is a sponsor of Mu Alpha Theta, a national

mathematics honor society primarily for high school students but which supports two-year college chapters as well. Information on both the SML and Mu Alpha Theta is at the AMATYC web site, [www.AMATYC.org](http://www.AMATYC.org). NEMATYC encourages you to consider joining the AMATYC Student Mathematics League and participating in this NEMATYC program. Your involvement can be as simple as just administering the tests or might include practice sessions or even advising a campus mathematics club.

### *Do you offer your best students a chance to compete nationally?*

#### Some History

NEMATYC team participation and success has improved dramatically over the past 7 years. In 03-04, two NEMATYC teams were involved, increasing to three, then six, nine, and up to the current twelve! Over this time period, NEMATYC teams have captured the northeast region championship four times.

#### Join the Fun

The first test of the 2011-2012 competition will be given October 14-29. If your college doesn't have a team, please consider joining the spirited rivalry among the participating NEMATYC schools. Your students will thank you for giving them the opportunity to compete at the regional and national level. Visit <http://sml.nematyc.info/> for more information.

### NEMATYC 2010-2011 Student Math League Standings

Rank*	INDIVIDUAL	Rank*	TEAM
4	Joshua Keller Massasoit CC	38.5	2 Quinsigamond CC 171
5	Matthew Scott Quinsigamond CC	36	4 Massasoit CC 155
9	Corey Ryan Massasoit CC	32	7 Greenfield CC 123.5
10	Kai Geffen Greenfield CC	30	8 Southern Maine CC 117
11	Sokol Lushllari Quinsigamond CC	29.5	9 Cape Cod CC 113.5
11	Andrew Ballantyne Massasoit CC	29.5	10 Middlesex CC 107.5
11	Gregory Kaminsky Holyoke CC	29.5	11 Springfield Technical CC 102
14	Vangjush Dedo Quinsigamond CC	28.5	12 NHTI - Concord's CC 95
15	Jongho Baek Springfield Technical CC	28	13 Bristol CC 94.5
17	Hardik Hanslia Quinsigamond CC	26	14 North Shore CC 83.5
19	Adam W Howarth Southern Maine CC	25	16 Holyoke CC 77
19	Minh N Nguyen Southern Maine CC	25	18 Mt. Wachusett CC -

\*Rank for the AMATYC Northeast Region, This report excludes schools outside the NEMATYC SML Region.

## JOIN NEMATYC

Not a member of NEMATYC?

Join by sending the \$10.00 annual membership fee, payable to NEMATYC,  
to

David Cox, NEMATYC Treasurer  
Southern New Hampshire University  
2500 N. River Road  
Manchester, NH 03106

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## CALL FOR NOMINATIONS

Do you like getting together and having a good time with a great group of people? Are you a mathematics educator? If so, then NEMATYC is the group for you and the NEMATYC Executive Committee wants you to join our enthusiastic, friendly group.

Every year, during the business meeting at the annual conference, NEMATYC holds elections for open positions. At the 2012 conference, we will need to fill a number of Executive Board positions. The positions that will be available are:

**President, Vice President, Secretary, and  
two Executive Committee At-large positions.**

We are looking for you to help us fill these roles. Working with our Board is a rewarding and fun experience, and is a wonderful way to put your professional dedication into action! It's great for you, your department and college, and the New England mathematics community. We can't promise a career boost, but for those of you who do not yet have tenure, just think how impressive it will look if you can say that you are on the NEMATYC Executive Committee! We would love to be able to say that every one of our member colleges has a representative on the Board.

The time commitment includes attending the annual conference (which hopefully you would attend anyway) and Board meetings that occur three times per year. These meetings are typically held in September, January, and June.

Here is a brief overview of the available positions (see the Constitution at [www.NEMATYC.org](http://www.NEMATYC.org) for a more detailed description of each position).

### **President**

- Two-year term
- Schedule and preside over Executive Committee meetings
- Assume the role of past-president at the conclusion of the term

### **Vice-President**

- One-year term
- Conducts meetings and fulfills the obligations of the President if the President cannot
- Assumes Presidency if the President is unable to continue in office

### **Secretary**

- Two-year term
- Responsible for the official correspondence of the Association
- Take minutes of the meetings of the Association
- Maintain an up-to-date copy of the Constitution

### **At-Large Member** (two to be elected)

- Two-year term
- Attend Board meetings
- *A great way to get involved with NEMATYC!!*

Please contact Past President **CAROL HENRY** at

[henryc@middlesex.mass.edu](mailto:henryc@middlesex.mass.edu)

should you wish to place your name – or that of a colleague – into nomination!

## **Tidbits and Miscellanea**

by Phil Mahler, editor

### **Speakers are Always Solicited**

Do you know of a good speaker for the lunch or dinner events at NEMATYC's annual conference? Someone that NEMATYC's membership would enjoy hearing? Let us know. We are always working to bring interesting, appropriate, and enjoyable speakers to you at the conference. And it is fair to say that we have managed that.

You may have heard an excellent speaker elsewhere—please share! If you have a suggestion, or suggestions, please let someone on the Executive Committee know. They are only an email away. See page 2 for contact information.

### **Spring 2012 Conference**

- As noted on page 1 the conference will be at NHTI–Concord's Community College on Friday and Saturday March 30-31, 2012.
- Unofficially, and subject to change, the Friday night event will probably be at the hotel. This has proved popular and successful in the past.
- The complete program and online registration will be available in the early spring.
- Note the call for presenters in this issue. You probably have something to share. Don't be bashful! NEMATYC attendees are your friends and colleagues and love sharing ideas.

### **Other Organizations and Conferences**

- [AMATYC](#) is the **American Mathematical Association of Two-Year Colleges**. We know you have heard of AMATYC! The next conference is right around the corner, November 10-13, 2011.
- [ATMNE](#) is the **Association of Teachers of Mathematics in New England**. Their next [conference](#) is November 9-10 in Warwick, RI. I note that two of their featured speakers, Margaret Kenney and Thomas Banchoff have spoken in the past at NEMATYC meetings, and are coincidentally mentioned in the "archives" on page 11! And Mary M. Sullivan, Rhode Island College, presents a workshop, and spoke at last year's NEMATYC conference!
- [ATMIM](#) is the **Association of Teachers of Mathematics in Massachusetts**. They join ATMNE at their Warwick conference.
- [NCTM](#) is the **National Council of Teachers of Mathematics**. Primarily K-12 oriented, we do share a great deal in common and certainly have the same goals. Besides enormous national conferences, they hold large regional conferences as well. Their next national meeting is in Philadelphia April 25-28. The next regional meeting is in Atlantic City October 19-21.
- [ASA](#) is the **American Statistical Association**. The teaching of statistics has changed enormously in the last 20 years, and teaching statistics has become less mathematical and more critical thinking (the editor's opinion). This has made the proper teaching of statistics a (useful) challenge for many math educators. Their next national meeting is July 20-August 2, 2012.

You did hear about the statistician who was shooting archery? The first arrow went just to the left of the bullseye. The second went just to the right of it. "I got it!" she exclaimed.

### **Simpson's Paradox**

As we move into baseball's world series season, don't forget to mention Simpson's Paradox to your classes from arithmetic to calculus. To steal from [Wikipedia](#) "A common example of Simpson's Paradox involves the batting averages of players in professional baseball. It is possible for one player to hit for a higher batting average than another player during a given year, and to do so again during the next year, but to have a lower batting average when the two years are combined."

I challenge my students to think of an example, even give extra credit for a nice write-up, and this has always been fun. But last year, I had a student give me an example (involving left- and right-handed batting averages, which was how I presented it in that case) before we left the classroom. He googled it! So next time I won't mention the words Simpson's Paradox right away. ☺



**Early Decision Deadline  
Friday Jan 20, 2012**

## Call for Presenters

# MATH: CONQUERED IN CONCORD

NHTI-Concord's Community College, Concord, NH Friday and Saturday, March 30-31, 2012

**Early Decision Deadline: Friday, January 20, 2012**

**Suggested themes:** teaching techniques, curriculum changes/development, distance education, assessment, new uses for technology, modeling data, connecting with students, math in the first two years, calculus, precalculus, service learning, transfer and articulation agreements, pedagogy, critical thinking, statistics, developmental math, or any other you feel is relevant to math education for the first two years of college.

Email submissions are preferred. Please include all of the following information. Email to [jking@ccsnh.edu](mailto:jking@ccsnh.edu).

Presenter \_\_\_\_\_

*Note: The registration fee for ONE presenter per presentation will be waived. Please specify which one if there are multiple presenters. For multiple presenters, please provide the following information for EACH presenter. Use additional sheets or the next page as necessary.*

### Contact information

College or affiliation \_\_\_\_\_

Contact Address (  College  Home ) \_\_\_\_\_

Telephone: \_\_\_\_\_ E-mail \_\_\_\_\_

<b>Time preference:</b> Please indicate a first and second choice.	_____	_____	_____	_____
	Friday afternoon	Saturday Morning	Saturday Afternoon	No Preference
<b>Length of presentation:</b>	_____ 45 Minutes	Workshops, short seminars, discussion panels, poster sessions are encouraged.		
	_____ 90 Minutes			

Presentation Title: \_\_\_\_\_

Abstract: \* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\* Normally 50 to 100 words. Attach separate sheet if this is easier.

Equipment/technology needs: \_\_\_\_\_

If you need additional information or have any questions, please call Judy King, 603-224-4303, or email [jking@ccsnh.edu](mailto:jking@ccsnh.edu). **Proposal Early Decision Deadline January 20, 2012.**

Mail to: Judy King Mathematics Department NHTI – Concord's Community College 31 College Drive Concord, NH 03301	Email submissions preferred. Please include all of the above information.  Email to <a href="mailto:jking@ccsnh.edu">jking@ccsnh.edu</a> . All submissions will be acknowledged by email.
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ADDITIONAL SPEAKERS

**Contact information**

College or affiliation \_\_\_\_\_

Contact Address (  College  Home) \_\_\_\_\_

Telephone: \_\_\_\_\_ E-mail \_\_\_\_\_

**Contact information**

College or affiliation \_\_\_\_\_

Contact Address (  College  Home) \_\_\_\_\_

Telephone: \_\_\_\_\_ E-mail \_\_\_\_\_

**Contact information**

College or affiliation \_\_\_\_\_

Contact Address (  College  Home) \_\_\_\_\_

Telephone: \_\_\_\_\_ E-mail \_\_\_\_\_

From the Archives at [www.NEMATYC.org](http://www.NEMATYC.org).

by *Phil Mahler, Editor*

## ***The NEMATYC Conference: 40, 30, 20, 10, and... 1 Year Ago*** (more details are on the website)



**NEMATYC 1972** In 1972 the meeting was held by MMATYC (M for Massachusetts), the precursor to NEMATYC. I do not have the date. It was held at the Yankee Drummer Inn in Auburn MA, which later became a Best Western, then a lumber yard, I am told. The President was **Frank Deane** of Berkshire CC.

It was keynoted by **Herb Gross** with an address entitled *Math Is A Four Letter Word*. This was followed by the workshops titled. *How Much Math Is Necessary?*, *Math For Liberal Arts*, *Remarks Concerning Courses In Remedial Mathematics*, *Placement In Curriculum*, *Individualized Instruction*, *Math Laboratories*, *Broad Math Curriculum In Two-Year Colleges*.

In November 1972 a second meeting was held at the Campus Center Building of the University of Massachusetts, in Amherst. "The purpose of this meeting is to open communications between the two year colleges and institutions to which our students transfer." More detail is on the website archives.

**NEMATYC 1982** was hosted by the **Community College of Rhode Island**, with **Joe Menard** as conference coordinator, on March 20, 1982. The offerings were a keynote by **Thomas Banchoff**, Brown University, *Computer Visualization Of The 4th Dimension*, and presentations were generally about mediated remedial instruction: *A Math Lab In Action*, *Supertrigonometric Functions*, *Remedial And Developmental Mathematics At Springfield Technical Community College's Mathematics Center*, *Math Anxiety*, *Team Teaching Approach To Self-Paced Foundation Courses*, *Pass Go - Do Not Fail*.

**NEMATYC 1992** was held at the Lowell (CITY) campus of **Middlesex Community College**, Lowell, Massachusetts, on Saturday, March 14. The theme was *Teaching in a Changing Environment*. Co-chairs were this writer, **Philip Mahler**, and **Regina Goodwin**. The NEMATYC President was **Jack Keating**, and I (Phil) was Vice President. A keynote address was given by **Margaret Kenney**, The Math Institute, Boston College, entitled *Discrete Mathematics in the K-12 Curriculum - Implications for Higher Education*. There were 20 workshops, and 12 publishers at the meeting. Of course today there are only a handful of publishers. Presentations included talks on graphing calculators, collaborative learning, biostatistics, learning math through writing, classroom research, using spreadsheets to teach pre-calculus and calculus, among others.

In addition to the meeting, NEMATYC offered an NSF-funded 3-day workshop **Teaching Calculus with a Computer Algebra System (CAS)**. This workshop was conducted by **Don Small**, of the United States Military Academy at West Point.

**NEMATYC 2002** was a two-day meeting, held at **North Shore Community College** in Danvers, Massachusetts, on Friday and Saturday, April 5 and 6, 2002. This was the 28th Annual Meeting. NEMATYC President was **Roberta Kieronksi** and the Conference Chairperson was **Judy Carter** of North Shore Community College. Friday evening included dinner at Jake's Grill, and **Philip Mahler**, AMATYC President and **Jack Keating**, AMATYC Northeast Vice President, spoke briefly at the dinner. On Saturday after-lunch speaker **James Tattersall**, Providence College spoke about the Lucasian Chair of Mathematics at Cambridge University. There were nine talks on Friday, and 20 on Saturday—quite a large number! These included several commercial presentations. Topics included student involvement during class, self-regulated learning in developmental classes, Pascal's Triangle, brain science and learning math, math and the Berlin airlift, using the Internet to enhance teaching... Take a look at the archive, it was quite a choice.

**1 YEAR AGO - NEMATYC 2011** *is on the next page*

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**NEMATYC 2011** was held at **Cape Cod Community College**, West Barnstable, MA on Friday and Saturday, April 29-30, 2011. The conference had also been held at "4C's" in 1998. The theme was "Relax, Refresh, Renew at the 4C's". (4-C's is of course "CCCC") The conference chair was **Mary Moynihan** of Cape Cod CC. Besides a great program, attendees heard great plenary talks on Friday evening on ecotourism and at lunch on Saturday, on speed-solving, the process of solving Rubik's cube in a matter of seconds.



**Dave Henry**, Bristol CC, presenting with a group on *Course Redesign*, using technology to deliver instruction, a hot topic.



The Friday evening soirée on the hotel property, on the water at Dennisport, MA: **Cliff Martin**, retired, **Mary Sullivan**, Massachusetts CC, **Judy King**, NHTI, **Mary Kehoe Moynihan**, Cape Cod CC and NEMATYC President, as well as conference chair and hostess!



**Ian Winokur**, Greenfield CC, was the luncheon speaker. Ian is a Rubik's Cube speed solver, and he spoke about his experience, solving algorithms, and demonstrated that he can solve a Rubik's Cube in less than 20 seconds!



**Magdalena Luca**, Massachusetts College of Pharmacy and Health Sciences, presents on *Using Scientific Writing in an Applied Statistics Course*



Attendees browse the book exhibits at break.



Did we mention that the meeting housing was on the water? ©



# News from our Campuses and Colleagues

## ***Bristol Community College***

**Susan McCourt** reports that the college welcomed two new fulltime faculty in the fall:

**Nick Mavrikidis** is a first generation Greek born in MA. He has earned two Masters: Math Ed from U Lowell and Pure Math from Northeastern U. He began teaching at Springfield HS of Science and Technology and has been an adjunct faculty member at Holyoke CC. He's also been a tutor for Pearson.

**Beth Donovan** earned a BS in Math and MS in Computer Science from WPI. She also earned an MS and PhD in Math from Northeastern U. She coauthored a paper published in the SIAM Journal of Discrete Mathematics (SIDMA) on the automorphism group of the Johnson graph.

In the Spring we were joined by **Alice Wilson**. Alice graduated with a BA/MA in Mathematics and a BS in Biology from SUNY Potsdam. She coauthored an article published in *Involve* in 2008 on graphs for which every planar immersion lifts to a knotted spatial embedding. She is currently an AMATYC Project ACCESS Cohort 8 fellow!

Of course, new faculty usually signal a departure. **Jerry Lepage** retired in the spring after many years of service to the department, including being chair and service to the college, including being Divisional Dean. We are pleased that Jerry continues to teach and attend department meetings.

The department is piloting a program to teach self-paced developmental math courses in computer labs.

## ***Quinsigamond Community College***

**Maureen Woolhouse**, Department Chair, and **Denise Robicheaud**, NEMATYC At-large Board member, report:

This summer QCC ran a special one week Math Boot Camp which was funded by a grant. The focus of the Camp was to attempt to boost the CPT scores of the approximately 20 attending students. This pilot project had as an intended goal the reduction in the number of developmental math courses these students would have been required to take by at least one.

This goal of reducing the number of preparatory math courses has also been espoused by the AMATYC Developmental Committee headed by Jack Rotman. The pilot program was enormously successful in achieving its goals. Here is a sampling of the results:

- 93% increased their score (13/14)
- 71% advanced at least one level of dev math (10/14)
- 7% advanced two levels (3/14)
- 29% stayed at Basic Mathematics (Note: One of these students missed advancing by 3 points and will be re-testing next week)

It is hoped that the College will institutionalize this CPT prep course and offer it several times during the summer as well as during intersession.

Last spring, QCC piloted emporium model classes for Beginning Algebra and Intermediate Algebra. Results were promising.

At the start of this semester, QCC was awarded a Vision Project Grant to increase the speed with which high school and college students can flow through the developmental math pipeline and into college level math courses. The grant will build on our previously piloted boot camp and emporium model curricula, and will include expanding these efforts at QCC and assisting local high schools to implement their own boot camp program.

Within the last year QCC welcomed three new full-time math faculty.

- **Joseph Babu**, who has a BS in Mathematics and an MS in Applied Mathematics. Joseph taught in the Kenya high school system before relocating to the US, and had been an adjunct instructor at several Massachusetts community colleges since 2003.
- **Aemiro Beyene**, who has an MS in Applied Mathematics. Before joining us at QCC Aemiro was a Math Professor at Antelope Valley College in California.
- **Sheiba Mas-oud**, who has BS degrees in Mathematics and Actuarial Sciences, and an MS in Biostatistics. Sheiba was a Math Instructor at Monroe College in New York before joining us at QCC. Feb 11

## MassBay Community College

MassBay has a new full time math faculty member, **Janine Lloyd**. Janine has a BS from the University of Illinois and a Masters from the University of Texas at San Antonio in curriculum and instruction. She taught for 10 years in public and private high schools in Texas before taking time off to raise a family. She returned to teaching 4 years ago as an adjunct at MassBay Community College. She likes to bring Quantitative Reasoning to her students and had a grant for the summers of 2009 and 2010 to teach high school teachers how to bring more QR to the classroom.

## Middlesex Community College

**Carol Henry** reports that **Mita Das** has joined the Mathematics department as Associate Professor. Mita was awarded a Ph.D. in Mathematics from the University of Missouri in May, 2011. While at Missouri, she received awards for both teaching excellence and leadership. Also, two seasoned veterans of Middlesex's self-paced studies mathematics program, **Bert Engvall** and **Scott Higginbotham**, have joined the department, as Middlesex has developed its "Ramp-Up" program, teaching developmental mathematics via MyMathLab and department-produced written materials.

## Roxbury Community College

**Javad Moulai** reports that Roxbury Community College has initiated a new procedure to make it possible for stronger students to try and demonstrate outcomes of developmental mathematics courses in the first three weeks of classes and move up free of all charges. They do not need to buy a new book, nor a student access code to the course management system when they move up to the next course.

The **AMATYC Conference** this year is  
November 10 - 13 in **Austin, Texas**

Would you have a great time, meet interesting colleagues, get new ideas for your curriculum and teaching, and generally get your batteries recharged?  
Are you kidding? It's an AMATYC conference!

**YOU CAN BET ON IT!**  
Register at [www.amatyc.org](http://www.amatyc.org).



## NEMATYC now has a Facebook page!

**Susan McCourt**, newly appointed NEMATYC Social Media Editor announces NEMATYC's Facebook page.

If you want to get news about NEMATYC and math and you're on Facebook, search for New England Mathematical and you'll find us.

If you "Like" the page, you'll see items of interest to NEMATYC members and friends. If you're not on Facebook, please share this information with your colleagues.

Want to "like" the page? Logon to Facebook and look for us or use this link:

<https://www.facebook.com/-/pages/New-England-Mathematical-Association-of-Two-Year-Colleges/179710415417538>

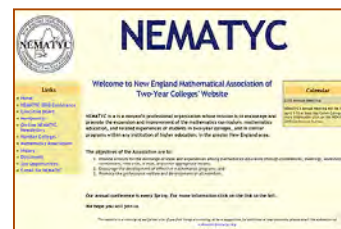
Please share with other math folks. Once we have 25 "likes" we can shorten the page link!

**Follow NEMATYC on Twitter! Our name is NEMATYC.**



## Visit the NEMATYC website!

Webmaster **Rick Butterworth** maintains the NEMATYC website. Go to <http://www.nematyc.org> and browse the links: Conference, Executive Board, Membership, On-line Newsletters, Member Colleges, Mathematics Associations, History, Documents, Job Opportunities, E-mail for NEMATYC.



## Don't Teach Scientific Notation!

by Phil Mahler

We generally teach “scientific notation” through what is sometimes called normalized scientific notation (NSN): a number written as  $d \times 10^N$ ,  $1 \leq d < 10$ . The  $d$  is called the “significant”, “coefficient”, or “mantissa”. Undoubtedly the reason that the significant has to have one digit in the units position harks back to calculations with logarithm tables and with slide rules. Some of our readers never saw either of these methods of computation, but many of us taught one or both, including me.

However there is a major weakness concerning a number in NSN. We cannot easily associate it with the way we read numbers in their decimal form. For example, I know that a million is  $10^6$ , so I can easily decode  $17 \times 10^6$  as 17 million. But in NSN this value is  $1.7 \times 10^7$ , which I cannot easily decode. I can read  $311 \times 10^9$  as 311 billion but put that in NSN and see that it is meaningless. Similarly  $59 \times 10^{-3}$  meters is easily read as 59 thousandths of a meter, or 59 millimeters.

Our names for powers of 10 group by exponents divisible by 3, and there is a subset of scientific notation called Engineering Notation (EN), in which exponents must be divisible by 3. Numbers in EN are easy to read:  $132 \times 10^{-6}$  farads is 132 microfarads, or 132  $\mu$ farads in a science application, whereas  $1.32 \times 10^{-4}$  farads does not translate into our system.

It must be assumed that anyone working with serious computation is using technology, so consider entering 13 million times 8 thousandths. This is easily entered as  $(13 \times 10^6)(8 \times 10^{-3})$  (regardless of the mode of the calculator) with result  $1.04 \times 10^5$ , which means nothing. But if a calculator is in EN mode the result will be  $104 \times 10^3$ , easily read as 104,000.

Some Examples	Conventional Prefix	Engineering Notation	Normalized Scientific Notation
59 billion	giga	$59 \times 10^9$	$5.9 \times 10^{10}$
250 million	mega	$250 \times 10^6$	$2.5 \times 10^8$
59 thousand	kilo	$59 \times 10^3$	$5.9 \times 10^4$
59 thousandths	milli	$59 \times 10^{-3}$	$5.9 \times 10^{-2}$
59 millionths	micro	$59 \times 10^{-6}$	$5.9 \times 10^{-5}$

I would argue that asking students to first put those initial values into NSN would lose an opportunity to understand appropriate powers of 10. And the same would be true if they had been written as 13,000,000 and 0.008 instead of the names of the quantities.

Some calculators support engineering (EN) mode for reading results, and I would argue this mode should be used when available. When not available, I will still suggest that an answer like  $18 \times 10^7$  be left in the form  $180 \times 10^6$  and not forced into the unmeaningful  $1.8 \times 10^8$ .

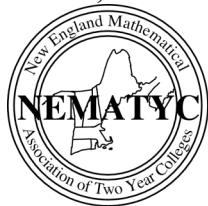
Engineering mode, with exponents divisible by 3, and a suitable-but-I'll-leave-that-to-you significant, allows us to read results in the ways in which we read decimal numbers. Normalized scientific notation usually does not. Since we no longer use tables of logarithms or the slide rule to compute, there is no longer any good reason that I know of to use normalized scientific notation. We should be teaching students something useful, engineering notation. EN illustrates computation with exponents as well as does NSN, but gives practical results, and reinforces our names for large and small amounts (millions and thousandths, for example).

So... let's stop teaching, or at least stressing, normalized scientific notation!

*Note: In my call for campus news etc I asked for short articles also. Some AMATYC affiliate newsletters regularly carry them. Having received none, and having a blank page ☺ I decided to put in a short version of an article I have been working on. I hope in future editions to carry short articles by you!*

*Phil Mahler*

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*Visit [www.NEMATYC.org](http://www.NEMATYC.org)  
See you at  
**NEMATYC 2012**  
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NHTI-Concord's Community College  
Judy King, Chair*

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