

# NORTHEASTERN SECTION



## NEWSLETTER

**Spring 2014**

**Volume 36**

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**Web Page:**

**<http://www.maa.org/northeastern>**

**Webmaster:**

**Rob Poodiack, Norwich University**

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## UPCOMING SECTION MEETING

May 30 and 31, 2014

Spring Section Meeting

Johnson State College, Johnson, VT.

Local Arrangements:

Julie Theoret (chair), Johnson State College

Greg Petrics, Johnson State College

Program Committee:

Greg Petrics (chair), Johnson State College

Julie Theoret, Johnson State College

Chris Aubuchon, Johnson State College

Rob Poodiack, Norwich University

## FUTURE SECTION MEETINGS

**November 21 and 22, 2014**

**Fall 2014**

Southern Connecticut State University, New Haven, CT

TBD

**Spring 2015**

Keene State College, Keene, NH

**November 20 and 23, 2015**

**Fall 2015**

Sacred Heart University, Fairfield, CT

**TBD**

**Spring 2016**

- University of New England, Biddeford, ME

## OTHER ACTIVITIES

May 30, 2014

Section NExT Meeting

Johnson State College, Johnson, VT.

## **Message from the Chair.....Eric C. Johnson**

Greetings! It's Commencement day here at the US Coast Guard Academy, and as I sit here writing my first "Message from the Chair," I want to start by thanking Karen Stanish for all she did leading the Northeastern Section as Chair (and all she continues to do as Past Chair), and all the other Northeastern Section Officers for their help as I settle into my new position as Chair.

Looking back, we enjoyed an excellent Fall Meeting at Wheaton College this past November 22-23. Once again, thank you to Tommy Ratliff from Wheaton and the rest of the Program Committee for putting together a stimulating slate of speakers, and to Janice Sklensky and the entire Local Arrangements Committee at Wheaton for hosting such an enjoyable meeting. Baltimore, MD then played host for the 2014 Joint Mathematics Meetings in January. As always, the JMM provides a wonderful opportunity to catch up with old friends, meet new colleagues, and plan future section activities. More recently the NES/MAA sponsored or co-sponsored the Sulski lecture at Holy Cross and another speaker at Sacred Heart for the surrounding colleges and universities in March; and the 4<sup>th</sup> Annual North Shore Undergraduate Mathematics Conference at Gordon College, 12<sup>th</sup> Annual Preskenis Dinner Meeting at Framingham State, and another dinner meeting at the Buckingham Browne & Nichols School, all in April.

Looking ahead, I'm excited for our Spring Meeting at Johnson State College May 30-31, 2014. Julie Theoret of JSC and the rest of the members of the Local Arrangements Committee, and Greg Petrics of JSC and the other members of the Program Committee have been working hard to organize and put together an exciting program, highlighted by Dr. James Bozeman from Lyndon State College, who will be giving the Battles Lecture on "Endogons, Exogons, and... Salamanders." You can find the complete meeting schedule, register for the meeting, submit an abstract, sign up for meals and/or a dorm room, and pay for the meeting fees at the website <https://sites.google.com/site/nasmaaspring2014/>. MathFest August 6-9, 2014 in Portland, OR will also be here before you know it, then it's on to Southern Connecticut State University for our Fall Meeting November 21-22...and the

MAA's centennial in 2015.

Speaking of the centennial, there was significant discussion at the JMM in January about section activities to lead into the Centennial Celebration at MathFest 2015. "Sections are strongly encouraged to have centennial themes at their meetings over this coming year...use the number 100 in competitions...have sessions on the history of the MAA or of the section...have a birthday cake...be creative!" We'd love to hear your ideas. Feel free to contact me or any of the Section Officers; you can find all our contact information at <http://sections.maa.org/northeastern/execcomm.html> .

Did you know that the NES/MAA has a Facebook page? Check us out and "like" us at <https://www.facebook.com/pages/Northeastern-Section-of-the-Mathematical-Association-of-America/211774532205194> .

Finally, the NES/MAA is always looking for new volunteers to serve the section in various capacities (on program and/or local arrangements committees, as section officers, etc. – we're especially in need of a new Webmaster), and institutions to host future section meetings. If you'd like to volunteer to serve the section in any capacity, please contact me.

In closing, I hope you all have a relaxing and productive summer...and to see you at Johnson State College May 30-31, 2014..

## **Message from the Governor..... Tommy Ratliff**

There were several items from the Board of Governor's meeting in January at the Joint Meetings in Baltimore that I know will be of interest to the Section:

- After the restructuring of the individual memberships last year, there will be no change in membership dues for 2015.
- The MAA will create its own searchable membership list separate from the Combined Membership List. The AMS has made some technical changes to the CML that make it more problematic for the MAA to participate in the CML.

- I would encourage everyone to read the joint American Statistical Association/MAA Statement on Qualifications for Teaching an Introductory Statistics Course at <http://www.maa.org/programs/faculty-and-departments/curriculum-department-guidelines-recommendations/joint-statement-teaching-intro-stats> (a google search for “joint asa/maa statement” is probably the easier than typing in the full url). I think these are very strong guidelines that not every campus can implement immediately, so they should perhaps be viewed as aspirational. However, as many math programs are now offering more sections of statistics, it is important to review the recommendations from our professional societies.

- The MAA will no longer offer short courses associated with the Joint Meetings or MathFest. This was primarily a decision based on resource allocation by the national office since supporting short courses required the MAA staff to arrive early for the meetings. This caused the short courses to run a substantial deficit, and the decision was made that the time, energy, and cost required is disproportionate to the number of people served.

- The 2015 Committee on the Undergraduate Program in Mathematics (CUPM) Curriculum Guide is being finalized and will come to the Board of Governors for approval at the 2015 Joint Meetings in San Antonio. There is a tremendous amount of work that goes into this document, and it will serve the community for many years.

- The Board of Governors is also reviewing its governance structure and a task force will bring recommendations to the Board in January.

I am sorry that I will not be able to attend the Spring Meeting at Johnson State College because of family commitments, but this looks like it will be another wonderful section meeting. I hope to see many of you at MathFest in Portland (Oregon) in August, or certainly at Southern Connecticut State University at the next section meeting in November.



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

In the fall newsletter, I reported a balance of \$22,096.24. Since that time, the expenses from the successful and highly attended fall meeting at Wheaton College were \$9,450.15. We spent \$225.00 on Student Awards for the Problem Solving Contest. The reimbursement for travel was \$992.95. The total expenses for the fall meeting were \$10,668.10, while the revenue from meeting registrations was \$6,042.38. We contributed \$500.00 to Sacred Heart University for an event they held this spring. The expenses for the printing and postage of the fall newsletter totaled \$1,142.40. We received \$59.12 from the MAA book sale. Since the fall newsletter, we earned \$8.41 in interest from money placed into a Money Market account. Our present balance is \$15,895.65.

The total expenses for our fall meeting were \$5,884.22 more than our spring meeting expenses, while the revenue from fall meeting registrations was \$2,793.21 more than the revenue from spring meeting registrations. The expenses for the postage and printing of our newsletter last fall increased somewhat from last spring. We spent \$766.90 for the printing and postage of the spring 2013 newsletter and \$1,142.40 for the printing and postage of the fall 2013 newsletter.

I wrote and submitted our Section's 2013 end of year Financial Report, Fall Meeting Report, and four Dinner Meeting Reports, and at the beginning of the summer, I shall be writing our Section's Annual Report and Spring Meeting Report.

That is my update for now! We are all looking forward to the Spring MAA meeting at Johnson State College on May 30 – 31, where I will update you further on our finances.

I wish you all a very enjoyable summer!

**Two-year College Representative’s Report ..... Phil Mahler**

Most two-year colleges are state run, not private, and their legislatures occasionally pay attention to them. For two-year colleges in the section’s region, a hot item is the demand by legislatures to reduce the time that incoming students spend on remedial education. In Connecticut no more than one semester is allowed. In Massachusetts the Board of Higher Education is ready to mandate no separate remediation at all if a student’s high school GPA is 2.7 or above, even 2.4 in some circumstances. The colleges are directed to provide the support these students need to succeed in a gateway (college level) course directed to their “meta-major” (general area of study – basically STEM, Business, or anything else) regardless of weaknesses they may have. It’s a bit of the “just-in-time” model. This is all supposed to increase the college success rate of underprepared students. We shall see.

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

We had an excellent meeting at Wheaton College in November. I thank all the organizers for their hard work. Now, we are traveling to the far north of the Section for a meeting at Johnson State College in Vermont. The program is in this issue and I hope many of you will join us.

The next MathFest is in Portland, Oregon. We will celebrate the 100<sup>th</sup> anniversary of Pi Mu Epsilon. I hope to see you there. The year after that, we will be in Washington to celebrate the MAA’s 100<sup>th</sup> anniversary.

**From the Colleges.....Ed: Frank Ford**

**College: Bridgewater State University**

**Reporter:: Heidi Burgiel**

**Jaqueline Anderson** comes to us from Brown University where she received her Ph.D. in Arithmetic Dynamics – a blend of number theory and dynamic systems. This semester she is teaching precalculus and multivariable calculus, working with the Math Club and Pi Mu Epsilon, and coordinating the department seminar.

**Judith Morin**, class of 2012, is our new administrative assistant. Her hard work, cheerful encouragement, and infinite patience have kept us going since September 2012.

Recently, more than 90 students from 18 communities in Massachusetts and Rhode Island took part in the Math Kangaroo at Bridgewater State University to take part in the Math Kangaroo, an international competition designed to help students develop their skills and enjoy mathematics.

The Math Kangaroo is a competition for students in grades one through 12, held each year around the world on the third Thursday in March, that takes the form of a multiple-choice test

This year, Polina Sabinin has brought “Games Teachers Play” to BSU under the umbrella of the Center for the Advancement of STEM Education (CASE). Games Teachers Play (GTP) is an outreach program in mathematics and mathematics education. While playing games and solving puzzles, people of all ages can develop and exhibit more complex levels of reasoning than in any other situations. GTP provides current and future teachers of mathematics an opportunity to share and learn about the world of engaging educational games and puzzles. Teachers will have an opportunity to learn about how to bring games and puzzles into the classrooms and the role games can play in K-12 mathematics curriculum..

**College: Regis College**

**Reporter Santosh Mathew**

The Mathematics and Computer Science Department at Regis College has initiated major changes in the curriculum and is ready to implement these revisions in the fall 2014. The Department has completed the introduction of a 3- credit Quantitative Reasoning and a 1-credit Quantitative Reasoning Plenary Lab in its curriculum for undergraduate students. These courses replace the current Elementary and College Algebra courses offered at Regis College. The Department in partnership with the Education Department offers Licensure in Secondary Education with a Mathematics Education major. The Department also offers minor in Mathematics.

The Regis College Quantitative Center (Q-Center) located in the Science

building serves the undergraduate and graduate student populations by providing comprehensive, drop-in tutoring support for courses with quantitative components. The Q-Center provides direct assistance to students via peer/professional tutoring, review sessions, and online/print resources. The Center works continuously and closely with faculty, staff, and students to establish additional programs that enhance student learning. Recently, Chris Coffin has been appointed as the Q-Center Coordinator.

**College: Saint Michael's College**

**Reporters: George Ashline  
Annie Baer**

On sabbatical in 2013-2014, Jo Ellis-Monaghan is co-PI on a \$2 million dollar NSF grant in collaboration with Caltech, NYU, and City of Hope to develop origami-based DNA self-assembly processes. The project includes Greta Pangborn in the CS department and involves SMC students in undergraduate research experiences. At the Joint Math Meetings in Baltimore in January, she presented "Polynomials of Graphs in Surfaces" at the MAA Invited paper session on Graphs Don't Have to Lie Flat: The Shape of Topological Graph Theory and was a panelist for the Project NExT panel on The Nuts and Bolts of Undergraduate Research. She continues as Editor-in-Chief of PRIMUS.

·Phil Yates recently published two jointly written articles, including one entitled "A Behavioural Dynamic Model of the Relative Age Effect" in the *Journal of Sports Sciences* and another entitled "How Predictible is the Overall Pattern in the NCAA Men's Basketball Post Tournament Poll?" in *CHANCE*.

·In September 2013, Bonnie Shulman from Bates College gave the colloquium talk "Social Justice: What's Math Got to Do with It?" Bonnie also has offered us advice in creating a new introductory level, quantitative reasoning Math for Social Justice course, which Krisan Geary has designed and is teaching this spring.

·In October 2013, we inducted ten undergraduates into the Vermont Alpha chapter of Pi Mu Epsilon. Zsu Kadas continues as chapter advisor. Rick Cleary from Babson College gave our annual PME lecture on "Some Non-Standard Applications of Mathematics to Sports."

**College: Western New England College**

**Reporter: Eric Clark**

We have two new hires (both replacements). Marcel Carcea is finishing his Ph.D. in Statistics and will be joining the faculty this fall. He, along with Dr. Dave Mazur and Prof. John Willemain, will be starting an Actuarial Program. The other new hire is Dr. Adam Fox. He is an applied mathematician finishing a post-doc at Georgia Institute of Technology.

Sadly, I am one of the people leaving WNEU.. Add Dave Mazur (dmazur@wne.edu) as he will the Chair of the Department next year.



Northeastern Section Spring MAA meeting , Project NExT  
**MAA Northeastern Section Newsletter “Lite”**  
**Spring 2014**

Full Newsletter accessible from [www.maa.org/northeastern](http://www.maa.org/northeastern)  
**JOHNSON STATE COLLEGE, JOHNSON, VT**  
**SPRING MEETING OF NES/MAA**

Meeting web site: [www.maa.org/northeastern](http://www.maa.org/northeastern)

**Friday, May 30, 2014 Northeastern Section NExT Program**

11:30-12:00 Registration in Bentley  
12:00 – 1:00 Section NExT lunch in WLLC 210  
1:00 – 2:00 Section Next talk in WLLC 210  
Rachel Schwell, Central Connecticut State University

**NES/MAA Spring Meeting**

11:30 – 5:30 Registration in Bentley  
1:30 – 3:00 Executive Committee Meeting  
3:00 – 3:50 Invited Speaker Talk  
Greg Warrington, University of Vermont  
4:00 - 4:50 Invited Speaker Talk: Vermont Mathematics Initiative  
Ken Gross, University of Vermont  
5:00 – 6:00 Student Presentations  
6:00 – 6:30 Reception  
6:30 – 8:00 Banquet  
8:00 – 9:00 Battles Lecture: Gerrymandering  
James Bozeman, Lyndon State College

**Saturday, May 31, 2014**

8:30 – 11:00 Registration in Bentley  
9:00 – 9:50 Invited Speaker Talk: The Mathematical Legacies of Alan Turing  
Mike Olinick, Middlebury College  
10:00 – 10:30 Morning Break  
10:30 – 11:20 Invited Speaker Talk  
Carl Pomerance, Dartmouth College  
11:30 – 12:00 Business Meeting  
12:00 – 1:00 Lunch  
1:00 – 1:50 Developing Classroom Discourse to Facilitate Proof Construction  
Sue Generazzo, Castleton State College  
2:00 – 3:00 Contributed Papers Session

**Program Committee**

**Greg Petrics, Johnson State College**  
**Chris Aubuchon, Johnson State College**  
**Rob Poodiack, Norwich University**  
**Julie Theoret, Johnson State College**

**Local Arrangements Committee**

**Julie Theoret, Johnson State College**  
**Greg Petrics, Johnson State College**