



October 2010



Matters Mathematical
The Newsletter of the Pacific Northwest Section of the Mathematical Association of America

JUNEAU MEETING

June 23-25, 2011

June 2011 PNW MAA Meeting at University of Alaska Southeast

It's not too early to plan for the Juneau meeting. In fact, October might be the best time to buy your plane tickets: Alaska Airlines offers discounts in October that are unmatched most of the rest of the year. For details on the meeting, please visit the meeting website:

http://www.uas.alaska.edu/arts_sciences/naturalsciences/math/maa/index.html



More information will appear in the spring newsletter.



Heads up! The next section meeting is in Juneau, Alaska June 23-25



PNW MAA Meritorious Service Award goes to Jenny McNulty

Jenny McNulty will receive the PNW MAA Meritorious Service Award at the Joint Meeting in January. Jenny McNulty has served the Pacific Northwest Section of the MAA in a variety of important ways. She served as PNW Section Chair from 1999-2001, and she chaired the Bylaws Committee in 2002. But perhaps most notably, she was one of the founders of the Pacific Northwest Section Project NExT during her time as Section Chair.

Jenny has served as the PNW Project NExT Director since its founding in 2000, and she has coordinated the PNW Project NExT program and listserv for ten years. She was one of the keys to the PNW having its own section NExT before many other sections. Beyond the organizational details she aptly tends to, Jenny reaches out to make personal connections with new national and section fellows at each meeting to welcome them into the PNW MAA community. The PNW Section NExT program has flourished with her leadership, and it has brought a new vitality to the section that will be felt for years to come. As evidence, during the banquet at the 2010 section meeting, the attendees were asked to raise their hands if they were involved with the Project NExT activities; half the people in the room raised their hands. Jenny McNulty is the reason for all those hands.



Jenny McNulty

The section nominates a recipient of this award every six years.

Congratulations to Jenny, and thank you for all of your work!

NUMS Conference April 9

Call for Undergraduate Presentations

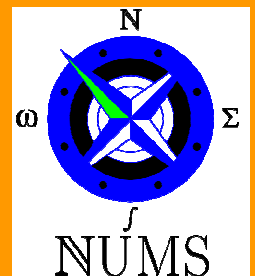
Join us at Reed College in Portland, Oregon on Saturday, April 9, 2011 for the third annual Northwest Undergraduate Mathematics Symposium.

The Reed Mathematics Department invites all mathematics students in the Pacific Northwest to present their work at NUMS this spring. First-year graduate students are welcome to present research completed while still undergraduates. Talks may be short (10 mins) or long (25 mins). Prizes in various categories will be awarded (including longest distance traveled to attend!).

There is no registration fee. Also, travel support will be available to students thanks to NSF-RUMC funding from the MAA. Please inquire to nums@lists.reed.edu for details.

Registration for participants and speakers begins March 7 and continues until March 28.

For more information, please visit <http://academic.reed.edu/math/nums>.



Project NExT at the Seattle Meeting

By Klay Kruczek

The Pacific Northwest Section NExT Meeting of 2010 in Seattle, WA occurred on Friday April 8, right before the start of the Annual Meeting of the MAA. The meeting was sponsored by the Dolciani Foundation. Approximately 40 people (PNW Section NExT Fellows, National NExT Fellows, consultants, speakers, and Project ACCESS Fellows) attended the meeting. We had three new PNW section Fellows this year, Ryan Bauer (Bellevue College), Megan Buzby (University of Alaska Southeast), and Eric Chesebro, (The University of Montana).



Klay Kruczek

The day began with a panel discussion about The Transition from High School to College Calculus. The panelists were Chris Lane (Pacific University), Dale Hoffman (Bellevue College), and Steve Dunbar (University of Nebraska – Lincoln). This topic has been quite popular since David Bressoud’s series of articles “Meeting the Challenges of High School Calculus.” Steve Dunbar provided data about the goings on with high school and college calculus, and the attendees really had a spirited discussion of this topic. Discussion points included “is AP Calculus preparing students for calculus at the college level?” and “is calculus the appropriate first college course in mathematics or are there alternative courses which would be better?”

The next topic of the day was about How to Run Effective Discussions Both Online and In-class. Jenny McNulty (The University of Montana) and Klay Kruczek (Western Oregon University) explained how they used online discussions in their class through blackboard, Facebook, and WebCT. David Green (Center for Excellence in Teaching, Seattle University) provided a lot of information on how to teach students to become good communicators in the classroom, encourage students to participate and share their ideas, and lead a fruitful discussion in the classroom.



Stuart Boersema

Stuart Boersema (Central Washington University) then discussed how he uses newspapers in the course he teaches on qualitative reasoning. In this discussion, he had the attendees look through a few newspapers and find how mathematics was used in them. He then explained more about how his course is run and, with the help of the audience, listed quantitative skills necessary for the critical reading and analysis of newspaper articles. Stuart and his co-authors Bernard L. Madison, Caren L. Diefenderfer, and Shannon W. Dingman have written a book about such a course entitled “Case Studies for Quantitative Reasoning: A Casebook of Media Articles”

Undergraduate research has become more and more popular these days. John Carter (Seattle University), Shannon Overbay (Gonzaga University), Jim Morrow (University of Washington), and Mike Spivey (University of Puget Sound) served on a panel and explained their success and failures with finding appropriate topics for research, finding students interested in undergraduate research, and how much guidance to give students when it comes to the mathematics and setting a time frame for the research.



Leanne Robertson (Seattle University), Gerard Venema (Calvin College; Associate Secretary of the MAA), and Jeff Weeks (geometrygames.org) ended the day with a conversation about mathematics outreach both locally in the schools and community as well as the national level. To learn more about Project NExT, visit <http://www.math.umt.edu/pnwnext/>.

John Carter

Nominations Sought for PNW MAA Distinguished Teaching Award

By Chris Black

Each year, every section of the MAA is invited to select a college or university teacher to be honored with a Section Award for Distinguished College or University Teaching of Mathematics. Recipients of the section awards then become nominees for the Mathematical Association of America's Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics. To be eligible, nominees must be current MAA members who teach mathematical science courses at least half-time during the academic year and have at least seven years experience teaching at the college or university level.

Recent recipients of the Pacific Northwest Section Award for Distinguished College or University Teaching of Mathematics are

- 2010: Nancy Neudauer, Pacific University
- 2009: Tom Dick, Oregon State University
- 2007: Duane DeTemple, Washington State University
- 2006: Jim Morrow, University of Washington, who went on to be awarded the national Haimo award in 2008.

A more complete list of award winners is available at <http://sections.maa.org/pnw/history/awards/index.php>.

Here's what you need to do to nominate a colleague for the Distinguished Teaching Award for the Pacific Northwest Section:

- (1) Check the section website at <http://sections.maa.org/pnw/> for the nomination form, or check your email for a message from the PNW Section of the MAA with the nomination form attached.
- (2) Nominate your colleague by completing the nomination form and including a brief (1-2 page) description of why this colleague deserves recognition. Initial nominations are due November 22nd.
- (3) The DTA committee will select up to three semifinalists. The nominators of the semifinalists will then be asked to complete a full nomination packet by January 14th.

Editor's Greetings

Thanks again to all contributors, and welcome to all of the new faculty in our region. If you plan to go to the UAS meeting, think about getting your tickets now: they are on sale in October relative to the rest of the year. Also, if you are not familiar with the NUMS conference, consider looking into it and taking some students — it's great fun every year!

Colin Starr, cstarr@willamette.edu

SECTION NEWS

British Columbia

On October 21 to 23, the **University of Alberta** is proud to partner with the Telus World of Science Edmonton, Stratford Elementary and Junior High School, Queen Elizabeth High School and Grant MacEwan University in the worldwide Celebration of the Mind, to highlight the achievement of Martin Gardner on what would have been his 96th birthday.



Matt DeVos

Simon Fraser University congratulates **Matt DeVos** on winning a **2010 Sloan Fellowship** for his research in graph theory.



Oregon

Professor **Mike Hitchman** of **Linfield College** did a summer research project with Linfield student Cynthia Lester. They looked at tiling questions involving tetrominoes and ribbon tiles. Linfield student Julianne Upton participated in the Mathematics REU at Rochester Institute of Technology, where she worked on developing ways to generate artificial networks. Julianne will be presenting her work at the JMM in January.

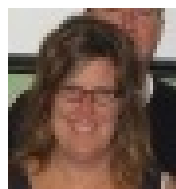
John Lee (Oregon State University) was the guest speaker for **Western Oregon University's** Pi Mu Epsilon induction ceremony, coinciding with WOU's 5th annual Academic Excellence Showcase.

WOU also hosted the annual meet-

ing of TOTOM (Teachers Of Teachers Of Mathematics).

The Mathematics Department of **Pacific University** was awarded a Dociani Mathematics Enrichment Grant from the MAA. The grant will fund a Mathematics Conference for high school students this spring, and will help to establish mentoring relationships between faculty and students.

Nancy Ann Neudauer will offer the Short Course "Matroids: Theory and Applications, from the ground up" before the Joint Meetings in January.



Nancy Neudauer



Mike Boardman

Michael Boardman is in his fourth year as Chief Reader for the AP Calculus Program.

Hannah Callender of **University of Portland** received a training grant from the Center for Undergraduate Research in Mathematics (CURM) to fund three undergraduate students in mathematical biology research throughout the 2010-2011 school year. Through the CURM program,



Hannah Callender

Hannah has received training on how to mentor undergraduates in research, how to organize and continue to operate undergraduate research groups, and how to prepare undergraduate students to succeed

in graduate studies in mathematics. This year Hannah's students will be developing and analyzing models of cell motility (how cells move). Her team consists of a senior biology major, a junior math major, and a sophomore engineering major, so each student has been able to provide valuable insight to the rest of the group based on their area of expertise. Hannah hopes this research experience will be the beginnings of a successful undergraduate research program in mathematical biology at the University of Portland.

Aaron Wootton was granted tenure and promotion to the rank of Associate Professor of Mathematics. He is a graduate of Southampton University with a BSc in Mathematics and Philosophy, and earned his Ph.D. at the University of Arizona. He joined the University of Portland faculty in Fall 2005. Congratulations to Aaron.



Aaron Wootton

Willamette University welcomes two new Visiting Assistant Professors, Drs. **Nicole Webb** and **Chad Giusti**. Dr. Giusti



Chad Giusti

graduated in 2010 from the University of Oregon, and Dr. Webb will graduate this fall from Oregon State University.



Nicole Webb



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Washington

CWU News Fall 2010

The mathematics department at



Dominic Klyve

Central Washington University welcomes two new faculty members this year,

Janet Shiver and Dominic Klyve.

Janet comes to us from *Georgia College and State University* in Milledgeville, Georgia. She recently finished her Ph.D. in Mathematics Education from the *University of Georgia* in June, 2010. Her research interests concern the mathematical beliefs of K – 12 teachers. It is not surprising that Janet loves music as well as math since her husband in the new chair of the music department. Janet can play the piano, cello and the clarinet. She also enjoys quilting. Dominic comes to us from *Carthage College* in Kenosha, Wisconsin. Dr. Klyve earned his Ph.D. from *Dartmouth College* in 2007 under the direction of Carl Pomerance. Dominic’s research interests are in Number Theory, in particular, Twin Primes. He is also interested in all things Euler and he is member of the Euler Society. When he is not chasing down twin primes Dominic also enjoys reading 17th and 18th European history, chess and juggling.



Janet Shiver

Eastern Washington University (EWU) recently was awarded a five-year, \$1.2 million dollar NSF

grant to provide scholarships for mathematics and science majors who become certified teachers. The Robert Noyce Scholarship program will increase the number of mathematics and science teachers who graduate from EWU. The grant is a collaborative effort between the Mathematics, Biology, and Education departments. The Principal Investigator responsible for the grant in the Department of Mathematics is **Dr. Keith Adolphson.**



Keith Adolphson

Dr. Jaehoon Yim is a Visiting Scholar at EWU from South Korea this year. Dr. Yim is a well-known mathematics teacher educator and textbook author in Korea, and is an Associate Professor at Gyeongin National University of Education. His recent work involved investigating how children tackled a task on division by fractions, and how they formulated numerical algorithms from their strategies. More recently, he has researched the effects of teachers’ understanding of school mathematics on their teaching. The EWU Mathematics faculty are delighted he is sharing his insights and experiences, and has joined them in many preservice and in-service mathematics teacher education opportunities.

At **Pacific Lutheran University,**



Jessica Sklar

Jeff Stuart has assumed leadership in the department as the new chair, while the

previous chair, **Mei Zhu**, has begun a well-earned sabbatical. **Bryan Dorner** and **Jessica Sklar** have returned from their sabbaticals, while **Chris Meyer** retired in May, but remains involved in student learning through tutoring students in upper-division courses. **Daniel (Deej) Heath**’s software “Geometry Playground,” a free ruler and compass Java application for multiple geometries, has been accepted for publication by MAA’s Loci. The software is now used around the world and its menu has been translated into 13 languages. The department’s Math Club, “Mathmation.” is now supervised by **Tom Edgar** and **Ashlyn Munson**, and has been quite active in the past year. The department also organized a successful Calculus Night in the spring, with over 70 students in attendance, and plans to repeat the event next spring.

Several faculty members at **Washington State University** received large research grants from the National Science foundations. These grants demonstrate that the department has a strong and active research program.

The department recruited ten new graduate students in the fall. All of them are supported by teaching or research assistant scholarships.

Despite the state budget problems, the department of mathematics continues its success in recruiting new students with mathematics as their majors. The total number of students majoring in mathematics is now more than 50. There are even more

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Upcoming Events and Conferences

Upcoming Meetings:

2011 PNWMAA at UAS (Juneau)
2011 NUMS at Reed (see p. 2)

<http://sections.maa.org/pnw/events/> (section)
http://www.maa.org/subpage_4.html (national)

Juneau meeting website:

http://www.uas.alaska.edu/arts_sciences/naturalsciences/math/maa/index.html

(You might need to copy and paste the link in two pieces into a browser.)

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students with mathematics as their minor.



Unaffiliated

After nearly 40 years at Cal State San Bernardino, **Bob Stein** has at last seen the light (yes, in winter it's gray) and loves living in Portland. His first professional effort here was to revise his book, written with Laura Wallace, *Mathematics for Teachers, an Exploratory Approach* (Kendall-Hunt, Dubuque, Iowa, 2009). Earlier versions have been used successfully at Cal State San Bernardino for years.

Bob also continues as Chair of the Americas Section of HPM (History and Pedagogy of Mathematics). The Americas Section annual meeting will be at American University in March, 2011.

In addition, there is a special meeting October 23-24, 2010 at Caltech. This meeting will include a special visit to see rare mathematics texts (including Newton's own copy of his *Principia* and one of the few remaining copies of the first mathematics book published in the New World, the *Sumario Compendioso* by Juan Diez).

Details of these meetings may be found on the website HPM-Americas.org.

Bob will be working with the Park City Mathematics Project in the coming year (or more) helping to get mathematics articles by secondary school teachers ready for publication. In that connection, he will need help reviewing. He will be especially grateful for help from people with strong backgrounds in probability and statistics as well as in mathematics education. If you are interested, please contact Bob directly at bstein@csusb.edu