



Matters Mathematical

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

JANUARY 2006

"LET ME COUNT THE WAYS..." Ashland, Oregon - June 2006

The campus of Southern Oregon University in Ashland, Oregon is set for the next annual meeting of the PNW MAA section.

The meeting will be held June 22-24, 2006 at SOU in Ashland in southern Oregon. The campus of Southern Oregon University is situated in the foothills of the Siskiyou Mountains and offers a picturesque setting for the annual meeting of the PNW MAA.



Beezer of the University of Puget Sound.

The meeting will include two minicourses: Donald Saari will focus on the "Mathematics of Voting," while Duane DeTemple (right) of Washington State University will deal with "Using The



Geometer's Sketchpad in Teaching and Research." The meeting will also have three general paper sessions.

Local Arrangements Chair Dusty Sabo promises great weather and a multitude of other activities for those interested in mathematical and non-mathematical activities alike. Southern Oregon is famous for its Shakespeare Festival, white-water rafting, Britt Music Festival, Crater Lake, historic Jacksonville, hiking, fishing, wineries, just to name a few attractions.

More Information and details concerning registration, paper submissions, and hotel accommodations, will follow in the spring edition of the newsletter.



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SECTION NEWS

Alaska

At **University of Alaska Southeast** Dr. Jill Dumesnil (right) joined the faculty, moving to Juneau from Texas. In addition, the new one-year-old mathematics B.S. program had its first graduate last summer.



At **University of Alaska Anchorage**, Ben Nolting, a mathematics major, was awarded a Goldwater Scholarship. Dr. Debbie Narang, Associate Professor of Mathematics at UAA, and Dr. Cora Neal (left), Assistant Professor of Mathematics and Applied Statistics are the Project Directors of a grant titled "Journeys in Mathematics". Partners in the grant are the College of Arts and Sciences, the College of Education, the Alaska Native Student Engineering Program at UAA, Anchorage School District and the Lake and Peninsula School District. The project is changing the nature of mathematics instruction in Alaska by enhancing the pedagogical content knowledge of 60 K-8 teachers through completion of the mathematics endorsement program. Dr. Kirk Scott, Assistant Professor of Computer Science, was awarded a Fulbright Senior Specialist Grant in Information Technology at Karelian State Pedagogical University, Russia. He traveled to Russia for a month in Summer 2005.



British Columbia

Robyn Endleman joined the Department of Mathematics and Statistics at **University College of the Fraser Valley** in Abbotsford, BC.

Dr. Erik Korolenko, a new hire of the **British Columbia Institute of Technology** Mathematics Department, presented "Distortions of Photoinduced Second-Order Decay Kinetics in Translucent and Light-Scattering Samples" at an international symposium on Reactive Intermediates in Photochemistry held at the University of Ottawa, Aug. 24-26, 2005. Also at BCIT, Winona Cordua-von Specht has become a permanent mem-

ber of the department this year. She has a background in biomedical engineering and is working on course development in the Prosthetics and Orthotics program.

Camosun College has started its first four-year degree program in the School of Business, a Bachelor's in Business Administration with an Accounting option. This impacts the mathematics offerings allowing the hire of a full-time continuing statistics instructor. The mathematics department now spans two schools: the School of Access (formerly Adult Basic Education) and the School of Arts & Sciences. This expansion has allowed the staffing of two mathematics labs, with math help tutors with degrees in mathematics as well as experience in math help and/or instruction.

At the **University of Victoria** there are six new faculty members: Martial Agueh (Partial Differential Equations), Laura Cowen (Statistics), Heath Emerson (Noncommutative Geometry), Farouk Nathoo (Statistics), Anthony Quas (Canada Research Chair, Dynamical Systems), Jill Simmons (Senior Instructor). Also, Pauline van den Driessche (UVic) and James Watmough won the 10th Bellman Prize for a paper resulting from work done while James was a post-doctoral fellow working with Pauline.



Oregon

At **Lewis & Clark College**, Harvey J. Schmidt Jr. (left), Professor of Mathematics, retired in May. He had been a member of the Department for 32 years and

had also served the Pacific Northwest Section of the MAA as chair (1985-1987), secretary/treasurer (1988-1994), and governor (1994-1997). There are now two new additions to the department. Prior to joining the department at Lewis and Clark, Elizabeth A. Stanhope (right) earned her B.A. from Carleton College, A.M. and Ph.D. Dartmouth College, and taught at Wilamette, the University of Michigan, and Dartmouth. Liz's research interests are in differential and spectral geometry. Prior



to her arrival at Lewis & Clark, Iva Stavrov (right) earned her B.S. from the University of Belgrade and her M.S. and Ph.D. from the University of Oregon. She also taught at the American University of Beirut. Iva's research interests are in algebraic topology and differential geometry.



There are four new tenure-track hires at the **University of Portland**. Meike Niederhausen (Ph.D. Purdue) is in mathematical finance; Hans Nordstrom (left) (Ph.D. Oregon) focuses in algebra; Stephanie Salomone (Ph.D. UCLA) works in harmonic analysis; and Aaron Wootton (Ph.D. Arizona) is an algebraic geometer. And after 40 years of dedicated service to the University Of Portland, Ron Smit has retired.



The 2004-2005 academic year was an exciting time for the mathematics majors at **Western Oregon University**. A. Brian Davis, Ronald Grover and Jennifer Carmichael participated successfully in the mathematics modeling CO-MAP competition. Presentations about their solution to a problem of designing booths on highways were given at the Oregon Academy of Sciences conference in February and at the MAA meeting in Tacoma in April. Five new members were inducted into Oregon Delta Chapter of Pi Mu Epsilon in May. Pi Mu Epsilon member Jennifer Carmichael won a monetary prize at MathFest in Albuquerque and Pi Mu Epsilon awarded her "Best Presentation" for her talk "Can You or Can't You Count Cantor...." Mathematics majors Will Bowers, Avery Cotton and Mandy Martin attended the NASA Microgravity University in Houston, Texas during the summer. The mathematics department at WOU hosted a Sonya Kovalevsky Day for high school girls on campus in April.

Students from Newport, Springfield, Marshfield, and Dallas attended this fun-filled educational day. Dr. Mike Ward spent an exciting sabbatical year at SUNY Stony Brook doing research in group theory. Dr. Maria Fung received tenure and was promoted to associate

professor. Dr. Klay Kruczek was chosen to be a Sterling Dot Fellow in the national Project NExT program. Finally, there are two new faculty members joining WOU's mathematics department. Dr. Scott Beaver received his doctorate from University of California at Davis in applied mathematics and he joins the department after a postdoctoral position at the University of New Mexico. Dr. Cheryl Beaver received her doctorate in number theory at the University of Arizona and prior to coming to WOU she worked as a cryptographer at Sandia National Labs.



Washington

At **Whitman College**, with David Guichard on a year-long sabbatical in New Zealand, Barry Balof on a one-semester sabbatical in Belgium, and Doug Hundley taking a one-semester sabbatical in the Spring of 2006, the math department finds itself with two new full-time teachers in its midst. Michael Wills (UCSB 2005), joins the department for the year with his wife Stephanie and very new son Andrew. He is teaching calculus and differential equations. Jim Cotts, retired to Walla Walla from the mathematics department at Southern Utah University, has taught full-time for Whitman in the past and is doing so in the present with linear algebra and statistics courses. In addition to new people, the department has a new Senior Project course running this year for the first time. This new course, a requirement of all math majors, was motivated by and modeled after a workshop run by Dusty Sabo and Kemble Yates of Southern Oregon University. There were thirteen students distributed over five faculty members, and the first time through this fall went very well.

At **Western Washington University** Arpad Benyi and Tilmann Glimm join the Department of Mathematics as tenure-track Assistant Professors in Fall 2005. Professor Benyi graduated from West University of Timisoara in Romania and completed his doctorate at the University of Kansas in 2002. He was a Visiting Assistant Professor at the University of Massachusetts, Amherst, during 2002-2005. His scholarly focus is in harmonic

analysis and its applications in partial differential equations. His publications include several expository articles, and in the best traditions of Romanian mathematics, he has also been deeply involved in facilitating student mathematical contests. Professor Glimm (left) was an undergraduate at the Technische Universität Berlin and completed his doctorate at Emory University in 2003. Prior to his arrival to WWU, Glimm was a Postdoctoral Research Associate in Physics at Emory. His mathematical focus is in applied mathematics, particularly mathematical biology and geometric optics, while his interests in physics center on supermanifolds. Professor Glimm helps meet the need for courses in mathematical modeling, strengthening the connections with the departments of Biology and Physics. Finally, the 2005 Pacific Northwest Numerical Analysis Seminar was hosted by the Department of Mathematics of Western Washington University in October.

The mathematics department at **Central Washington University** is pleased to introduce its newest faculty member, Kathy Temple. Kathy grew up in Spokane and she earned two Bachelor of Science degrees (math and economics) at the University of Washington. From there she went to the University of Wisconsin where she finished her Ph.D. in probability theory. Besides teaching math and working on measure valued processes Kathy enjoys playing violin, organ, and singing. Also at CWU, a university-wide team of twelve faculty members from has received funding from NSF to write and implement Interdisciplinary Lively Application Projects (ILAPs). These projects will be written by interdisciplinary faculty teams and used in introductory mathematics courses. The project is lead by faculty from the mathematics department (pictured right, counter-clockwise): Stuart Boersma, Dan Curtis ,

Timothy Englund, Jon Fassett, Michael Lundin, and Aaron Montgomery.

The **Seattle University** Mathematics Department was very pleased to welcome two new tenure-track faculty members this fall: Dr. Mark MacLean and Dr. Dylan Helliwell. Mark MacLean (below) earned his Ph.D. at the University of Wisconsin at Madison in 2001 and spent four years at the University of North Carolina Asheville as an assistant professor of mathematics prior to joining the Seattle University faculty. Dr. MacLean's area of specialization is algebraic combinatorics and he continues to delve into problems concerning distance-regular graphs. When not pursuing his mathematical interests, Mark enjoys playing tennis, hiking around Mt. Rainier, and playing competitive board games. Dylan Helliwell completed his Ph.D. at the University of Washington in 2005, studying conformally compact Einstein manifolds with C. Robin Graham. Dr. Helliwell's current mathematical interests include conformal geometry, homogeneous Kahler manifolds, and the development of geometry for undergraduates. Dylan did his undergraduate work at Harvey Mudd College in Claremont, California, where he worked with Weiqing Gu studying Grassman manifolds over the quaternions.



In addition to teaching and learning mathematics, Dylan enjoys spending his free time with his fiancée Tarah, watching local theater, practicing karate, skiing, and surfing.



Interested in Project ACCESS?

Project ACCESS (Advancing Community College Careers: Education, Scholarship, and Service) provides professional development and mentoring for new mathematics faculty at two-year colleges. It is funded by a grant from the ExxonMobil Foundation. The project, jointly developed by the American Mathematical Association of Two-Year Colleges (AMATYC) and the MAA, has as its goal the development of a cadre of two-year college mathematics faculty who are active and effective members of their profession. New two-year college faculty with full-time renewable contracts are eligible to apply if they were hired after July 1, 2004. Faculty must have a master's degree or higher in mathematics or a related field. Information, forms, and deadlines are available at <http://www.maa.org/ProjectACCESS>.

RECENT DISTINGUISHED TEACHING AWARD RECIPIENTS

2004 - Douglas F. Mooers - Whatcom Community College

Doug Mooers concentrates on student needs, invites independent thinking, and stimulates curiosity in mathematics. Many students who attend community college must overcome tremendous barriers to reach their educational goals; for some, it takes a special instructor to awaken their confidence and build their knowledge – Doug Mooers makes a difference in many of their lives. Doug holds students to high academic standards while he models a strong, positive work ethic. The students express it best: "Doug brings a ray of light to the subject of math by his kindness, knowledge, commitment, and understanding." "I am a returning student after dropping out of high school twelve years ago with terrible math anxiety.

But now, I love coming to class. His teaching methods and sense of humor are great. When it comes to test time, I feel very prepared." "Doug creates an ideal atmosphere for learning the difficult subject of calculus. Simply put – he is the best math teacher I've had in all the mathematics courses I've taken over the years." "As an international student, I have trouble understanding some teachers. Mr. Mooers makes learning easy. His lecture is clear and precise. He leads us into the heart of the problem and explains every step. But, the best part of the lecture is his humor. He uses different accents (i.e., British, tax collector, rasca!,...) to attract our attention and ease the atmosphere. His way of teaching is invincible." Doug has distinguished himself as a master teacher, an innovator, a leader among faculty, and an inspiration to many people. The broad scope of Doug Mooer's influence is astonishing. While his teaching effectiveness and influence beyond Whatcom Community College is well documented, the excitement and curiosity about mathematics that he generates among his students is truly inspirational.

2005 - Chris Meyer - Pacific Lutheran University

Chris Meyer has a solid teaching record that spans more than 30 years at PLU. He has led seminars on pedagogy within the department and has often spoken on pedagogical issues. He is known for using interesting and innovative material in his lectures. He often makes "gadgets" that demonstrate points in lecture. For example, he once built a transparent water tray that he could put on an overhead projector to demonstrate wave action. He often uses visual aids, many of which he makes. He has produced his own materials when he finds available texts lacking, including a book (unpublished) on matrix algebra and substantial material on logic and proof. His contributions outside PLU can be seen in the impact of his students on the community. For example, one is dean of the school of science at a local community college.



Interested in Project NExT?

Project NExT (New Experiences in Teaching) is a professional development program for new or recent graduates in the mathematical sciences (including pure and applied mathematics, statistics, operations research, and mathematics education). It addresses all aspects of an academic career: improving the teaching and learning of mathematics, engaging in research and scholarship, and participating in professional activities. It also provides the participants with a network of peers and mentors as they assume these responsibilities.

1. What are the requirements for the national program?

Applicants for the national program must have a Ph.D. in the mathematical sciences and be in the first two years of a full-time college/university teaching position. For more information, visit <http://archives.math.utk.edu/projnext>

2. What are the requirements for the PNW Project NExT section?

Applicants for the PNW section must have a Ph.D. or a master's degree in the mathematical sciences and be within the first four years of full-time teaching at a college, university, or community college. For more information, visit <http://www.math.umt.edu/pnwnext/>

3. How often do we meet?

Participants in the national program meet at two consecutive MathFests and at the intervening Joint Meetings of the AMS and MAA. Participants in the section NExT meet at two consecutive PNW MAA meetings.

4. When can I apply?

The deadlines for the PNW section program is April 26, 2006. For more information, visit the website or contact Jenny McNulty at McNulty@mso.umt.edu. The deadline for the national program is in April but has not been announced as of yet.

Nominations for Distinguished Teaching Award

Officers of the PNW section of MAA solicit your nominations for the Distinguished Teaching Award. This award is given once a year to one college teacher in the Pacific Northwest. The recipient of the award from our section is then a nominee for the Deborah and Franklin Tepper Haimo Award of the MAA. Eligibility requirements and guidelines for the nomination are given below.

Eligibility

- College or university teachers assigned at least half time during the academic year to teaching a mathematical science in a public or private college or university (from two-year college teaching through teaching at the Ph.D. level) 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 teaching experience in a mathematical science.
- Membership in the Mathematical Association of America.

Guidelines for Nomination

The nominees should

- be widely recognized as extraordinarily successful in their teaching. "Teaching" is interpreted in its broadest sense (it may include activities such as preparing students for mathematical competitions at the college level, for example, the Putnam Prize Competition or the Mathematical Contest in Modeling, or attracting students to become majors in a mathematical science or to become Ph.D. candidates)
- have teaching effectiveness that can be documented.
- have had influence in their teaching beyond their own institutions. This can include demonstrated lasting impact on alumni, influence on the profession through curricular revisions in college mathematics teaching with national impact, influential innovative books on the teaching of college mathematics, etc.
- foster curiosity and generate excitement about mathematics in their students.

If you would like to nominate someone, please print out, complete, and return the attached preliminary nomination form. Preliminary nominations will be screened by the Section Screening Committee who will select the finalists. The home institutions for the finalists will then be asked to prepare a complete nomination portfolio. Complete nomination portfolios include

- a letter of support by the nominator,
- two letters of support by colleagues,
- two letters of support by students, and
- additional evidence of distinguished teaching

Deadline for submission of preliminary nominations is January 14, 2006. For additional information please contact
Dusty Sabo

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APRIL 13-14, 2007 - MARK THE DATES!

The 2007 annual meeting of the Pacific Northwest MAA section is scheduled for April 13-14, 2007 in McMinnville, Oregon at Linfield College.

More information to come in future newsletters.

If you have any questions, comments, or suggestions concerning the newsletter, please contact

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Distinguished Teaching Award PNW-MAA Section

Complete this form and return to

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FAX: (541) 552-8212

DEADLINE: JANUARY 14, 2006

Nominee Information

Name of Nominee_____

Name of College or University_____

Work Address_____

Work Phone _____Home Phone_____

Number of years teaching experience in a mathematical science_____

Has the nominee taught at least half-time in a mathematical science for the past 3 years (do not count sabbaticals)?_____

Activities related to teaching, if any (list only 5 most significant)_____

Membership and significant activities in relevant professional organizations

Previous awards for teaching, if any_____

Additional relevant information_____

Nominator Information

Name_____

Address_____

E-mail_____

Work Phone_____