Matters Mathematical

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

NOVEMBER 2006

ASHLAND MEETING - June 2006

The annual meeting of the Pacific Northwest MAA section was held at Southern Oregon University in Ashland, Oregon, June 22-24, 2006. The attendees were treated to a well planned meeting, thanks to Dusty Sabo, the local arrangements chair, and the rest of the organizers from SOU and from around the section. The weather and location were also beautiful, although it is not clear that the organizers deserve credit for that.

The meeting began on Thursday, June 22 with Project NExT (New Experiences in Teaching) and two minicourses. Duane DeTemple of Washington State University led a group in a minicourse called "Using The Geometer's Sketchpad in Teaching and Research." The minicourse was intended for college math instructors with limited experience with Geometer's Sketchpad (GSP). He focused on the use of GSP in calculus, math education courses for preservice teachers, combinatorics, math history, and geometry. He then examined GSP as a tool for mathematical discovery and exploration.

Donald Saari (right) of University of California Irvine gave his first of three presentations at the meeting in a minicourse titled "Mathematics of Voting." Saari showed that the choice of the optimal voting rule is a very interesting problem mathematically. The applicable mathematics range from simple algebra and geometry to combinatorics and even algebraic topology and the orbits of permutation groups. And he was true to his word, as his abstract claimed that those who attended should "expect to leave wondering whether, in your last election, the correct person was elected."

On Friday morning, Saari gave his invited talk at a plenary session of the meeting. His focus was on the *N*-body problem in a presentation titled "The Chaotic Evolution of Newton's Universe." Jim Tattersall (left) of Providence College was the next invited speaker. After lunch on Friday, Tattersall gave a brief history lesson of Cambridge University with "Episodes in the Early History of the Lucasian Chair."

After a busy day of contributed talks and meetings, the banquet was held Friday night and, in addition to a delicious meal, a number of important announcements were made. The section heard from our out-going governor, Rob Beezer of the University of Puget Sound and was also introduced to our newly-elected governor, Nancy Ann Neudauer of Pacific University. The new Project NExT fellows were introduced to the section by Jenny McNulty. Jim Morrow of the University of Washington was awarded the Distinguished Teaching Award and was introduced by Yves Nievergelt of Eastern Washington University. John Thurber of Eastern Oregon University was elected as the new chair-elect of the section, and Chris Black was elected as the new secretary-treasure for the PNW MAA section. Finally, longevity was the focus with recognition of those members of the sections who have been members of the

inside this issue:

MAA for 25 or 50 years.

After the meal, the audience was treated to the third and final presentation of Donald Saari. His theme was "The Power and Beauty of Mathematics" and he showed how "[we mathematicians] don't make physical, social, and biological advances, we make them both possible and better."

The final day of the meeting included many contributed talks and the final invited speaker, Rob Beezer. Beezer gave a brief introduction to establishing trusting relationships in cyberspace in "Cheats, Liars, Posers and Thieves: Cryptographic Protocols for Insecure Networks."

Congratulations and thanks to the organizers, Dusty Sabo, Chris Hallstrom, Nancy Ann Neudauer, Curtis Feist,,and Jenny McNulty, for putting on another great meeting.

PROJECT NExT IN ASHLAND

The fellows and consultants (above) of Project NExT began their meeting in Ashland on Wednesday evening, June 21, with a dinner and discussion at the Great American Pizza restaurant. The dinner was a great way to get reacquainted and catch up since the last meeting in Tacoma. The theme of the discussion was "What's Happening in Your Department?" and was organized by John Thurber of Eastern Oregon University.

The schedule continued the next morning with the introduction of the new section fellows: **Cheryl Beaver** of Western Oregon University, **Jennifer Halfpap** of the University of Montana, **Cristina Negoita** of the Oregon Institute of Technology, and **Meike Niederhausen**, **Hans Nordstrom**, and **Aaron Wootton**, all of the University of Portland.

The first session was dedicated to research opportunities for undergraduates in mathematics. Shannon Overbay of Gonzaga University organized the panel discussion of different modes of research at three northwest institutions. Chris Black of Central Washington University then presented in the second session. Her focus was "Teaching Abstract Algebra through the Dihedral Group on a Square." Black showed how she has used this group as the recurring theme in her abstract algebra course for returning students.

In the third session, Jenny Laveglia of Belleview Community College talked about "Academic Life Beyond Teaching and Mathematics." Laveglia discussed her own experiences at her institution and how she has worked to find a balance between her classroom and non-classroom activities. In the fourth session, which was organized by Stuart Boersma of Central Washington University, the attendees split into two discussion groups, according to interest. The first group discussed and swapped ideas and projects for courses at or below calculus. The second group exchanged ideas, projects and techniques in courses after calculus.

The last session featured Klay Kruczek and Maria Fung of Western Oregon University presenting their work "Preparing Future Teachers." The activities then ended Thursday evening with an informal dinner at the Standing Stone Brewery.

Thanks to Jenny McNulty, the Project NExT Coordinator, for another successful meeting. As always there were many opportunities to learn and exchange new ideas with good conversation along the way.

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, and in addition to new and returning section fellows, all national NExT fellows are welcome and encouraged to attend the section NExT meetings.

4. *When can I apply?*
The deadlines for the PNW section program is February 9, 2007. 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.

SECTION NEWS

Alaska

Colleen Ianuzzi has joined the **University of Alaska Southeast** faculty at the Ketchikan campus as the sole faculty member there.

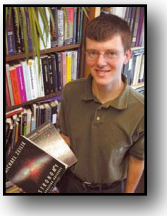
British Columbia

The **British Columbia Institute of Technology** Mathematics Department came up a big winner in the Institute Employee Excellence Awards. Alan Isaak (above right) received the Teaching Excellence Award for the school. Elizabeth Gray (left) won the first Innovation in Teaching with Technology Award for her work on MapleTA. Louise Routledge (right) won the Leadership Award for her work as Chair of the Mathematics Department and as an instigator and co-chair of the institute-wide PD Day. In addition, the BCIT Mathematics Department welcomed their latest hire, Laura Billing. Laura has a Bachelor of Applied Science (Mechanical Engineering) from the University of Waterloo and a Master of Applied Science in Aerospace Engineering from the University of Toronto. This is her first faculty appointment. In her Masters program she researched mathematical models and modified Fortran code for the flow over an airfoil to improve gradient-based optimization results. Eric Hiob (above) has just returned from a year's professional development leave to further develop his Algebra Coach software (http://www.mathonweb.com/). Andrew McConnell (left) will be taking a professional development leave in spring term to pursue fluid mechanics modeling.

David Holloway (below right) received school funding this year to pursue modeling and software development for shape change in plants, as well as continuing his NIH-sponsored research on variability and noise propagation in fruit fly development.

Montana

Carroll College has been awarded a 3-year, $100,000 grant from the National Science Foundation for the project Math QUEST: Math QUestions to Engage STudents. The co-PIs on the project, Kelly Cline (below right), Mark Parker, and Holly Zullo, will be writing and testing classroom voting questions for use in differential equations and linear algebra courses. The first round of differential equations questions will be ready for class-testing this spring, with linear algebra questions ready to be tested in fall 2007. If you are interested in class-testing these materials, or for more information on the project, please visit http://mathquest.carroll.edu.



Oregon

At **Reed College**, two faculty have published books recently. Professor Jamie Pommersheim (left) co-authored a book *Number Theory: A Mathemythical Approach*. This title is published by Key College Publishing and is available now. Professor Irena Swanson (right) wrote the book *Integral Closure of Ideals, Rings and Modules*. This title is being published by Cambridge University Press and will be available in late October.

Dr. Charlie McCoy, C.S.C. started his position as Visiting Assistant Professor at **University of Portland** this fall. Charlie (below right) earned his Ph.D. in 2000 from the University of Notre Dame, and did a post-doctoral fellowship at the University of Wisconsin- Madison from 2000-2002.

Caleb Emmons (below right) joins the factulty at **Pacific University**. Caleb received his Ph.D. in June 2006 from University of California at San Diego. His dissertation work was in number theory, specifically in extending Stark's conjectures and investigating the arithmetic properties of special values of zeta and *L*-functions attached to number fields. His interests include algebra, class field theory, excellent teaching, basic questions of arithmetic, juggling, and both mathematical and non-mathematical poetry. Chris Lane is working with the Oregon Health Sciences University in expanding the use of his program designed to assist physicians in assessing the quality of life for prostate cancer patients. Michael Boardman has been appointed the next Chief Reader for the AP-Calculus program. Nancy Ann Neudauer (left) was elected to serve as the Governor of the PNW-MAA section and appointed to the Committee on Sessions of Contributed Papers. Christine Guenther is on sabbatical this year, working in Spain, Germany, and later at UC Berkeley.

At **Lewis and Clark College** Naiomi Cameron (below) has joined the faculty as an assistant professor of mathematics this fall. Naiomi earned her Ph.D. at Howard University, in the area of enumerative combinatorics. Before coming to Lewis & Clark, Naiomi taught at Occidental College and Harvey Mudd College. Professor

Robert Owens (right) will retire at the end of fall semester after 32 years at Lewis & Clark. He will be missed. In the spring of 2006, Peter Drake (below left), assistant professor of computer science, published a textbook *Data Structures and Algorithms in Java* (Pearson-Prentice Hall). In addition, there was an article in the August 16, 2006 issue of the *Oregonian* entitled "Go, digital" about Peter Drake's research into programming a computer to play the game of Go. Roger Nelsen (below right) published the second edition of his *An Introduction to Copulas* (Springer), and a new MAA book *Math Made Visual: Creating Images for Understanding Mathematics* (co-authored with Claudi Alsina). There were also two student research projects during the summer 2006. Jeanie Karns '06 and Matt Lang '07 researched shapes called orbifolds with Professor Liz Stanhope (left) for 10 weeks. They asked, if an orbifold were struck like a drum what would it sound like? In particular they computed the vibrational frequencies (Laplace eigenvalue spectra) of various orbifolds shaped like footballs. Students Rowena Held '08 and Brian Van Koten '07 worked with Professor Iva Stavrov (below right) on a project entitled "Riemannnian Geometry of the Octonionic Projective Plane." Since the octonionic projective plane cannot be defined using classical homogeneous coordinates due to the non-associativity of the octonions, they considered restricted homogeneous coordinates introduced by I. Porteous. They expressed the metric and the curvature of the octonionic projective plane in terms of these coordinates and proved that the resulting Riemannian manifold is isometric to the octonionic projective plane defined using Jordan algebras and/or exceptional Lie groups. Their methods extend to the semi-Riemannian setting, where they consider non-degenerate but not necessarily positive definite metrics.

During the summer at **Linfield College**, Dr. Stephen Bricher (right) worked with a student, Brandi Harrison '07, on a research project investigating nonlinear reaction diffusion equations, which can be used as a mathematical model for various biological phenomena, as well as to model problems in combustion theory. Specifically, they used both analytical and numerical techniques to investigate traveling wave solutions and were able to estimate the rate of decay of the traveling wave solutions. In one particular case, this estimate was nontrivial to prove because the typical linear methods failed to work. However, they were able to use center manifold theory (a nonlinear technique), which is one of Dr. Bricher's areas of expertise, to determine the rate of decay. Professor Martha Van Cleave (left) is spending the fall on sabbatical working on a study on student discourse in college mathematics classrooms. During the summer she co-led a two-week MSP institute on probability and statistics for middle grade teachers in Washington County. Finally, math major Kira Durand '07 spent spring semester 2006 in Hungary participating in the Budapest Semesters in Mathematics Program.

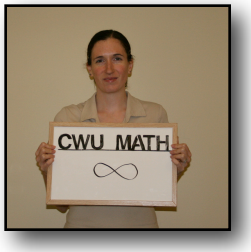
At **Western Oregon University**, the outstanding mathematics major graduate of 2006, Jennifer Carmichael, participated in research with Mike Ward (right) on the connections between Sudoku and group theory. She was awarded the prize for outstanding student research and exposition from the Council on Undergraduate Research at MathFest in Knoxville, Tennessee for her presentation "When Are Cayley Tables Sudoku Puzzles?" Avery Cotton, a senior this year, also gave a presentation at MathFest, entitled "Modular Prime Sieve." Laurie Burton co-authored *Mathematics for Elementary Teachers: An Activity Approach*, 7/e with Albert B. Bennett, Jr., and L. Ted Nelson. Faculty member Cheryl Beaver was selected as a National Project NExT Fellow. Finally, the Delta Chapter of Pi Mu Epsilon had another successful induction ceremony in May with an address by Sam Hall on "Eduoard Lucas: Sequences for Fun, Fame, and Secrecy."

Washington

Seattle University Mathematics Department welcomes their newest faculty member, Dr. Sandra Spiroff (right), who just completed a three-year post-doctoral appointment at the University of Utah. Following her undergraduate work at Indiana University, Sandy completed her Ph.D. at the University of Illinois at Urbana-Champaign. Her research area is commutative algebra. During the past summer, two members of the department traveled to other continents to participate in special activities related to mathematics. In August, Dr. John Carter (left) visited the Pontificia Universidad Católica de Chile, located in Santiago, by invitation of PUCC. John gave a number of lectures on mathematics education and worked with the Engineering School and the Mathematics Department on topics relating to teaching mathematics to engineers. Sister Kathleen Sullivan (right), Associate Professor of Mathematics,

was invited to be part of a U.S. delegation participating in a conference in Seoul, Korea. Funded by the National Science Foundation, the Ministry of Science and Technology in Korea, and the Korean Science and Engineering Foundation, the forum, "Attracting Gifted/Talented Students into Science and Engineering," included a presentation by Sister Sullivan on "Science Splash", a four-week summer enrichment program for high-achieving middle school girls. This program, developed and coordinated by Sister Sullivan, has been hosted by Seattle University for the past 14 summers.

Central Washington University's mathematics department welcomes three new faculty members this year. The department's most recent tenure-track hire is Chris Black. Chris teaches classes for the Career Switchers and the Two Plus Two programs at CWU's Lynwood branch. Chris did her undergraduate work in mathematics and computer science at the University of Puget Sound, and she earned her Ph.D. at the University of Massachusetts, Amherst. Her dissertation was on Riemann surface theory. Her current interests, however, lie in secondary mathematics teacher training and interdisciplinary mathematics. The department also has two new instructors in Ellensburg. Doug Olson has taught math at various locations around the world. He has also worked in the insurance industry and earned a masters degree in mathematics from Washington State University. Jessica Giglio (right) comes to CWU from a position at Linn-Benton Community College in Albany, Oregon. She completed her masters degree at Oregon State University, studying the RSA cryptosystem. She also did an REU at Cal Poly as an undergraduate, which resulted in a paper on q-derangement problems. Her non-mathematical interests include dance, drawing, and writing poetry. The department is also very pleased to announce that their chair, Stuart Boersma (left), received the Trevor Evans Award in recognition for his Math Horizons article, "A Mathematician's Look at Foucault's Pendulum."



Clark College mathematics faculty member Chris Milner (below left) won the 2006 Clark College Exceptional Faculty Award. This award is given annually to a faculty member who demonstrates outstanding classroom instruction and service to students. In winning the award, Chris was acknowledged for his professionalism, his dedication to student success, his patience, and his sense of humor both in and out of the classroom.

Members of the Math Department at **Whatcom Community College** have been busy over the past summer. Jeannette Stephens, Heidi Ypma, and Ed Harri (right) attended a weeklong workshop presented by the Whatcom and Skagit Math Partnership. Ed Harri was also a presenter at this workshop with a session that integrated mathematics with both history and economics. Heidi Ypma attended the Transitions Math Project Summer Institute and will be working with the Whatcom County Project grant over the next year. Will Webber is on sabbatical this fall and is working on several fascinating geometry articles.

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

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2007 PNW MAA Section Meeting

April 13-14 at Linfield College in McMinnville, Oregon

Keynote Speakers: John Conway, Elwyn Berlekamp, and David Wolfe

Tentative Schedule:

Friday, April 13
Morning: Project NExT Meeting
Afternoon Minicourses:
"A Tour of Combinatorial Games,"
Elwyn Berlekamp, UC Berkeley, and David Wolfe, Gustavus Adolphus College.
"An Approach to Population and Biological Modeling for Pre and Post Calculus Students,"
Sharon Brown and Chris Dugaw, Humboldt State University.
Evening: John Conway (open to public)

Saturday, April 14
All day: Section Meeting
Evening: Banquet at Evergreen Aviation Museum

Local Arrangements Chair: Jennifer Nordstrom jnordstrom@linfield.edu. For more information please see the meeting web site http://web.clark.edu/math/PNWMAA/.

Interested in Project ACCCESS?

Project ACCCESS (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/ProjectACCCESS.

GOVERNOR'S REPORT *by Nancy Ann Neudauer*

The 2006 MathFest found us in beautiful Knoxville, Tennessee, in the foothills of the Appalachians. Knoxville is the home of the Volunteers of the University of Tennessee, sits on the broad Tennessee River, and is a short drive from the Great Smoky Mountains, our most visited national park. Knoxville is undergoing a renovation which was evidenced by the trendy sidewalk cafés of the pedestrian-only Market Square and the free Trolleys traversing the city's streets. With more flexibility for MathFest than for the Joint Meetings (because of the smaller size), the national officers scour mid-sized cities for meeting sites, getting us off the beaten track.

I want to thank members of the Pacific Northwest section for electing me as your Governor; it is an honor to serve the section at the national level. The Board of Governors met for the day preceding MathFest – we needed a full day as the agenda was 109 pages long! In addition to hearing reports from the staff, officers, and committees, the Board of Governors approved several section's Bylaws changes and nominees for prizes and editorial boards. I will share some highlights.

Students first. A new position, Associate Director for Student Activities (now hiring), has been created to coordinate existing student programs, provide more information for students on the website, and work on initiatives coming out of the *student* segment of the Cycle II strategic planning. There was a focus at the meeting on student activities. This has prompted me to consider our own student activities and how we connect our students to the MAA; perhaps you can do the same and consider how we might get students more involved, both through our own departments and as a section.

The MAA Regional Undergraduate Mathematics Conferences has received three additional years of NSF funding; 73 conferences were funded by the first grant, and it is expected that a similar number will be funded under the second grant. There was a conference funded under this program in our section at the University of Portland in March 2005. More information is at www.maa.org/rumc.

The organizers of the American Mathematics Competitions are seeking colleges and universities interested in administering the AMC 10 and AMC 12 on 21 February 2007. For information on the American Mathematics Competitions see www.unl.edu/amc. A documentary film, *Hard Problems*, about students at the USA Math Olympiad is in production and should be ready in a year; it is similar to the book *Count Down* and the film *Spellbound*.

Both MAA staff and the MAA's Science Policy Committee expressed concern over cuts in undergraduate-oriented programs at the NSF and in the small increase in funding of mathematics in the 2008 NSF budget. They urged all members of the MAA to continually remind elected officials of the importance of mathematics.

The MAA's financial position is strong. The MAA is working toward the goal of having an unrestricted endowment equal to one year's operating budget, and this year a budget surplus of about $600,000 was transferred to investments. The MAA's assets are now at the $15 million level.

Executive Director, Tina Straley, reported on a number of developments, including the renovation of the Carriage House. This renovation, funded primarily from a generous gift of Paul and Virginia Halmos, was completed the end of August. The century old building has been transformed into a state-of-the-art mathematical meeting center that can accommodate groups of up to 60 people. The Carriage House will be used for mathematical programs (both local and national) and will be rented out to provide revenue. The opening ceremonies will take place with an exciting program on April 19-21, 2007.

Under Straley's leadership, the MAA has instituted a program of continual strategic planning. Cycle I is almost complete, and the Governors should receive reports at the Joint Meetings in January on the three areas studied (revenue, professional development, and mathematics competitions). Cycle II (governance, students, and membership) has just begun. We were directly involved in part of the governance planning; at this year's Board of Governors meeting we broke into focus groups to discuss how to enhance the role of the Governors in the governance of the MAA.

The most exciting and heated discussion of the meeting ensued when inspecting several sections' proposed Bylaws changes. While all changes were approved and no section was held up on this point, the general feeling was that sections should have a reasonable quorum specified in their Bylaws. Since none of us wants to be held to the default definition (a majority of the membership), we should state what definition the section will use. It was made clear that "Those who are present" is not in the spirit of a quorum, does not fit the definition of a quorum, and makes calling for a quorum a ridiculous act. It could not be agreed as to whether this definition is illegal, vacuous, or simply nonsensical. The national officers are consulting with their lawyers on this point. Since our section does have this language in our Bylaws, we should visit this issue.

William Hawkins, Jr. reported on a new program funded by the Tensor Foundation, called the MAA Tensor-SUMMA program. College and universities, working in collaboration with middle and high school teachers, may apply for grants of up to $5000 to support enrichment programs for middle and high school minority students

Project NExT begins each year at MathFest. This year Project NExT has 84 new fellows, including 8 from our section. This year Project ACCESS (the two-year college version of NExT) has 30 fellows.

The MAA's publication program continues to be very successful – 17 new books are currently in the pipeline. The online journals JOMA (Journal of Online Mathematics and its Applications) and other parts of the MathDL and Math Gateway continue to attract new readers.

The MAA's Professional Enhancement Program (PREP) is funded through 2008 – watch for the list of next summer's

PREP workshops at www.maa.org/prep. Next summer's Mathematical Study Tour, 1-16 July 2007, will focus on Euler, and will visit St. Petersburg, Berlin, and Basel. In 2008 the Study Tour to Peru will be led by Joel Haack.

President Carl Cohen reported on the Third International Conference on the Teaching of Mathematics in Istanbul, Turkey (that was supported by the MAA). He believes that it is important for the MAA to foster international discussions of college teaching issues, and he encourages the MAA to expand international collaborations.

I hope to see a strong showing from our section at next year's MathFest, which will be nearly in our backyard in San Jose, California, August 3-5, 2007.

I am interested in any ideas you have for the MAA. Please feel free to phone or e-mail me. There are several positions open in the MAA; please see the web site and nominate anyone (including yourself) for these positions. I look forward to seeing you at the Joint Mathematics Meetings in New Orleans in January, and at our Section Meeting at Linfield College in April. It appears that an exciting program is under way!

A MESSAGE FROM THE CHAIR

It was great to see so many PNW MAA members in Ashland last June! Once again, special thanks to Dusty Sabo and all of our wonderful hosts from Southern Oregon University. I particularly enjoyed our invited talks. We learned a bit of history from Jim Tattersall while Donald Saari and Robert Beezer got us all thinking about information: both how to convey it securely as well as how it can be put to use (or misuse) once that information has been obtained. The meeting also saw some change in the governance of our section. John Thurber (Eastern Washington University) was elected Chair-elect and Chris Black (Central Washington University) was elected secretary-treasurer. Be sure to attend the next Business Meeting in order to see the applied side of Donald Saari's theory (i.e. come and vote!).

Our by-laws state that our (PNW-MAA) purpose "shall be to assist in the improvement of education in the mathematical sciences at the collegiate level." I had a wonderful opportunity this summer to attend a variety of meetings outside of my "usual" haunts. I was inspired by the number of people, organizations, colleges, universities, and high schools dedicated to this very same purpose: Project NExT and the MAA, the Washington Center for Improving the Quality of Undergraduate Education (and their national workshop on Learning Communities), the Transition Math Project and all of their Phase II project teams across Washington State. At all of these meetings I learned that the Pacific Northwest is full of dedicated educators who recognize the importance of college-level mathematics in today's society as well as the inherent difficulties in such education. I applaud everyone who is dedicated to this single purpose.

A STUDENT'S PERSPECTIVE *by Elise Lockwood*

My participation in the PNW-MAA conference in Ashland last June prompted me to reflect upon mathematics as a profession. As a student, I anticipate my professional life with a mix of eagerness and trepidation. Observing my departmental faculty, I see composed, competent mathematicians and educators who contribute novel, important ideas to their fields. As exciting and triumphant as their accomplishments are, I often feel that their successes are a culmination of years of work that I find nothing less than daunting. I have left many a classroom and meeting wondering if I, a mere grad student, could ever be capable of such achievement. I am hopeful, yes – but at the same time uncertain. Will those elusive credentials ever follow my name?

There are a handful of practices that mark the professional mathematician, setting him or her apart as an active member of the mathematical community. While research and journal publication may top the list, conference participation must not be forgotten. So, when the opportunity arose last June to present a talk about the teaching of mathematics, I sensed it was too valuable an opportunity to pass up. Feeling more than a little unqualified, I prepared a 15-minute talk about teaching combinatorics using rooks on a chessboard, drawing directly from my Master's project I had completed in May.

At the conference, I participated in three types of activities. I listened to a handful of paper presentations, I attended the conference banquet, and, of course, I delivered my talk. As I reflect now, I see that each of these activities provided me with an invaluable insight that has affected and will continue to shape my development as a mathematician.

First, as students and professors presented numerous ideas, I was reminded of the sheer breadth of mathematics that is currently being explored. I may never study product calculus or differential equations as deeply as these speakers have, but gaining exposure to these topics furthered my own appreciation of the diversity of mathematics.

Second, I found the conference to be a wonderful opportunity to meet and connect with other mathematicians. At the banquet I spoke with professors from a community college in Washington. From them I gained insight into how other colleges function (besides my own PSU), and I got a deeper sense of what mathematicians do. Even after my brief time with them, I firmly believe that I could, in coming years, contact them for advice.

Finally, I would say that the greatest benefit from my involvement with the PNW-MAA conference was feeling like I came one step closer to full membership in the mathematical community. The experience of giving my talk was, simply, incalculable. I learned practical things like preparedness and poise, but I also engaged in a professional rite of passage in a safe and forgiving environment. Now, having successfully completed a conference talk, I truly believe that the lives my professors lead are that much more attainable...and that just might be enough to get me through another year.

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 12, 2007. For additional information please contact

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Distinguished Teaching Award PNW-MAA Section

Complete this form and return to

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Lynnwood, WA 98036-5999
Office: (425) 640-1574 x3871
Fax: (425) 640-1488

DEADLINE: JANUARY 12, 2007

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)_____

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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_____