



Matters Mathematical

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

JUNE 2005

2005 MEETING OF THE PNW MAA *by Mike Boardman*

With 250 registrants, 130 of them students, our recent annual meeting, held April 1-2 at the University of Puget Sound in Tacoma, Washington, was by all measures a great success.

Keith Devlin, famous for his popular writing and appearances on National Public Radio as the Math Guy, kicked things off with a stimulating presentation to a packed house on "How much mathematics can be for all?" Jenny Quinn, co-author of the new book *Proofs that Really Count*, engaged her audience by letting them decide which way her talk should go, and by calling for votes on which results were correct. And Frank Farris, recent editor of the *Mathematics Magazine*, wowed us with a superb presentation of the mathematics of symmetries and wallpaper patterns.

At the closing banquet, we previewed a BBC documentary on "Beating the Casino." One amusing scene had Devlin walking through the desert looking as though he had come out of an all-night casino, gun in hand, and in full 007 attire.

Dozens of students, both graduate and undergraduate, presented to enthusiastic audiences. Jenny McNulty of the University of Montana conducted a mini-course on "Teaching Linear Algebra with Technology," while Jenny Quinn ran one entitled "Combinatorially Thinking." Project NExT fellows learned, among other things, techniques for incorporating writing in mathematics courses, and what it takes to write popular mathematics. Attendees also enjoyed the general paper sessions and a special session for early-career faculty.

Congratulations to the planning group, Rob Beezer, Nancy Ann Neudauer, Curtis Feist, Jenny Laveglia, and Jenny McNulty, for putting on a splendid meeting.

"This was a bustling, cordial meeting and I'm very happy to have had the opportunity to go."

Frank Farris

Editor - *Mathematics Magazine*



CONTENTS:

project NExT

2

project ACCESS

2

2006 in ashland, or

2

alaska 2004

3

message from the chair

4

treasure's report

4

2006 PNW MAA Section Meeting June 22-24 at Southern Oregon University

Tentative Schedule:

- Thursday June 22 Morning Project NExT meetings and minicourses
- Friday June 23 All day PNW section meetings and evening banquet
- Saturday June 24 Morning PNW section meetings

Local Arrangements Chair: Dusty Sabo sabo@sou.edu

More information to come in the fall newsletter.

Project NExT in Tacoma by Jennifer Nordstrom

The Pacific Northwest Project NExT held their 2005 section meeting on Thursday, March 31 and Friday, April 1. The activities included a variety of sessions of interest to early-career faculty, as well as more informal opportunities for faculty to socialize with other Pacific Northwest colleagues.

Approximately 30 participants attended the various activities. Participants included PNW Section NExT Fellows, National NExT fellows, consultants, speakers, and new Project ACCESS Fellows. We welcomed one new section fellow, Klay Kruczek, from Western Oregon University.

The activities began Thursday evening with a fantastic dinner hosted by Nancy Ann Neudauer (Pacific University) and Mark Lincoln. This was a great opportunity to meet new people and catch up with friends. After dinner, people gathered for a discussion led by Scot Leavitt (Portland Community College). Participants discussed issues surrounding student preparation for classes.

The main portion of the meeting was held on Friday. First was a session in which John Bardley, Mark Kayll, and Matt Roscoe, all of the University of Montana, presented a variety of conceptual hooks and interesting applied problems to use in undergraduate classes. Then Julie Fredericks (Linfield College) presented her work with an MSP grant and led a discussion of opportunities for new faculty. Chris Black (Seattle University) organized a presentation on using writing assignments in mathematics courses. The speakers were Bryan Smith (University of Puget Sound) and English professor John Bean (Seattle University). The fourth session, organized by Nancy Ann Neudauer, was a panel on expository writing. The panel consisted of the three keynote speakers for the PNW MAA meeting: Keith Devlin (Stanford University), Frank Farris (Santa Clara University), and Jennifer Quinn (Occidental College). It was a wonderful opportunity to listen to the advice and encouragement from these nationally recognized experts! The meeting concluded with a discussion of planning for next year, led by Jenny McNulty. Later in the evening the participants and speakers gathered for an informal dinner at a local restaurant.

Once again the meeting was a great success. It provided opportunities for faculty from a variety of institutions to gather, discuss common issues, learn from each other, and learn from some experts!

Project ACCESS

- by Janet Ray

PNW Project ACCESS Fellows, three from Washington and one from Oregon, participated in the Project NExT sessions at the recent PNW-MAA Section meeting. Jacque Freudenthal (Spokane CC), James Kelly (Bellevue CC) and Aaron Warnock (Highline CC), were joined by Jack Green (Mt. Hood CC) at the spring MAA Section meeting at University of Puget Sound.

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.

Freudenthal, Green, Kelly, and Warnock represented the PNW Section in the first cohort of Project ACCESS Fellows. As part of their yearlong fellowship program, they attend special sessions at two AMATYC Annual Conferences and during the intervening year participate in their local MAA Section meeting. The Pacific Northwest can take pride in the fact that of the 28 Fellows selected from around the nation, four are from this Section.

A second group of Fellows will be selected for 2005-06 and a third for 2006-07. New two-year college faculty with full-time renewable contracts are eligible to apply if they were hired after July 1, 2003. Faculty must have a master's degree or higher in mathematics or a related field. Information and forms are available at <http://www.maa.org/ProjectACCESS>. Deadline for receipt of applications is July 1, 2005.

2004 Alaska Meeting

by *Kamal Narang*

The 2004 meeting of the Pacific Northwest Section of MAA was held at the University of Alaska Anchorage on June 24-26. The meeting was attended by over 100 participants and there were 36 contributed papers presented during paper sessions. In addition to the general session, there were sessions on Discrete Mathematics, Applied Mathematics, Teaching Mathematics, Mathematics of the North, and the student paper session.

Three invited talks provided the participants with a variety of interesting topics. The Polya lecture, "Dirty Children, Unfaithful Husbands and Similar Problems" was delivered by Prof. I Martin Isaacs from the University of Wisconsin, Madison. Dr. Ronald L. Graham, scholar from UCSD and President of MAA, talked about the "Stomachion of Archimedes." Prof. Kenneth A. Ross from University of Oregon talked about "Two Vexing, Though Unimportant Problems." There were three mini courses: "What Are Your Math Majors Learning," "Earthmath: Classroom Projects with Environmental Applications," and "Bridging the Gap Between Mathematics and the Physical Sciences." The three special sessions were "MAA Committee on Undergraduate Program in Mathematics (CUPM)," "Improving the Mathematical Education of Teachers: The PMET Project," and "Quantitative Literacy/Quantitative Reasoning." The social events were the Project NExT dinner on Thursday, the lunch on campus between the sessions on Friday, and the banquet and awards presentation on Friday evening held at the Hotel Captain Cook.



tana and Scot Leavitt of Portland Community College.

The five sessions of the day consisted of two presentations and three panel discussions.

The first panel discussion focused on "Teaching Issues below Calculus," and was organized by Chris Black of Seattle University and Ann Sitomer of Portland Community College. The discussion included four panelists: Brian Blitz (University of Alaska, Juneau), Paul Cassillas (Clark College), Paul Latiolais (Portland State University), and Jenny Lavelgia (Bellevue Community College). The discussion focused on a variety of issues involved with the strategies in teaching courses below calculus,

including alternatives to the traditional pre-calculus curriculum.

The first of two presentations was devoted to "Workshop Statistics: An Alternative Approach to a Standard Introductory Course." The presenters, Charles Dunn and Jennifer Nordstrom of Linfield College, discussed their experiences transitioning from the standard lecture-based statistics class to a workshop style, using the texts and materials of the Rossman-Chance statistics books.

The next panel, "Alternatives to Lectures," was organized by Kelly Cline of Carroll College. The panelists (Stuart Boersma of Central Washington University, Mark Fitch of UAA, and Mark Parker of Carroll College) and organizer provided such alternatives as small-group work, computer-lab activities, and multiple choice activities with classroom sets of voting devices.

The fourth session was led by Gavin LaRose of the University of Michigan. LaRose, one of the organizers of the national NExT program, presented "Effective Use of Writing Projects in Courses near Calculus." He provided examples and resources for such projects that he and his colleagues have developed.

The final session was a panel discussion, "Continued Teaching Improvement," organized by Mark Fitch and Holly Zullo (Carroll College). The panelists (Kelly Cline, Judith Green of UAA, Jennifer Nordstrom, and Shannon Overbay of Gonzaga University) discussed the improvement and encouragement of improved pedagogy at their respective institutions. These ranged from informal peer reviews to university-sponsored teaching development programs. The day ended with a delicious salmon cookout organized by Mark Fitch and Cora Neal of UAA.

Project NExT in Alaska

by *Chuck Dunn*

For the participants in the PNW Project NExT session at the 2004 PNW MAA meeting, the conference in Anchorage started a day early. While the June meeting started on Friday, NExT participants had a full day on Thursday, with five sessions, social activities at lunch, and salmon cookout for dinner. The organizer for the day's activities was Jenny McNulty. The day began with a coffee social and an introduction to the two newest NExTers: John Bardsley of the University of Mon-

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?

Deadlines for both the national program and the PNW section program are in the spring. There will more information in the next newsletter.



A Message from the New Chair

At the conclusion of the last meeting, I, successfully I hope, made the transition from "chair-elect" to "chair" of our section. Since my new title became effective at the end of the meeting, I managed to carefully sidestep any speaking parts at the banquet and instead enjoyed the hospitality of the University of Puget Sound and the delightful dinner conversation with Keith Devlin, Frank Farris, Jennifer Quinn, and Tom Read. It truly was a nice ending to a great meeting. With about 250 in attendance (well over half of these students!) at the well-populated paper sessions, minicourses, and invited presentations, I think it is safe to say that the meeting was a great success. I realize that many people were involved in making this meeting such a pleasure and, while I cannot name them all, they are all deserving of a rowdy round of applause. I would particularly like to thank Rob Beezer and Nancy Ann Neudauer whose late nights handled all of the last-minute preparations and schedule changes.

We will have an early summer meeting next year in beautiful Ashland! While I am sure that the organizers will plan a great mathematics meeting, Shakespeare and the great outdoors may also provide incentive to make the journey. As the annual section meeting is our primary activity, I do hope to see many of you there. Following our meeting at Southern Oregon we will head north to enjoy the hospitality of Linfield College for the 2007 meeting.

Finally, as I begin to learn the ropes that make up the duties and responsibilities of Section Chair, I am looking forward to working with many of our members who volunteer their time and energy in order to keep our section alive and well.

*Stuart Boersma, Central Washington University
Chair of the Pacific Northwest Section of the MAA*

If you have any questions, comments, or suggestions concerning the newsletter, please contact
Chuck Dunn
Department of Mathematics
Linfield College
503.883.2273
cdunn@linfield.edu

Treasure's Report - Dusty Sabo

Begin Balance (12.31.03)

\$9,056.74

Revenues

MAA Subvention

1,400.00

Project NExT

210.00

Interest on Checking

8.73

TOTAL REVENUES

\$1,618.73

Expenses

Postage

46.85

Newsletters

1,021.03

Project NExT

210.00

Awards

48.95

TOTAL EXPENSES

\$1,326.82

Ending Balance (12.31.04)

\$9,348.65