

SOUTHWESTERN SECTION NEWSLETTER

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Editor: Thomas Gruszka, WNMU

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1. THE NEWSLETTER BY EMAIL

If any member of the Southwestern Section would like to receive the sectional newsletter by email INSTEAD of through the postal service please email the editor (<tpeter@cs.wnmu.edu>) with the words EMAIL PLEASE in the subject heading or the body of the message. The newsletter is published twice a year, once in the fall and once in the spring.

2. CALL FOR NOMINATIONS FOR THE SECTIONAL AWARD FOR THE DISTINGUISHED COLLEGE OR UNIVERSITY TEACHER OF MATHEMATICS

Each year the Southwestern Section forwards one nominee to the MAA as our nomination for the Distinguished Teaching Award. At this time we are seeking nominations for the 2004 award from our Section. 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 five years experience teaching at the college or university level. Successful nominees are individuals who are widely recognized for their extraordinarily successful teaching effectiveness and whose teaching has had influence beyond their own institution. We will recognize the winner from our Section at the April Section Meeting in Flagstaff, and will forward this nomination as our Section's official nominee for the Deborah and Franklin Tepper Haimo Distinguished Teaching Award.

Nomination forms and information about the material that needs to be included in the "packet" are available online at <www.maa.org/Awards/Haimo_NF.pdf>, or from me, Joanne Peeples. You can reach me at (915) 831-5047 or by email at <joannep@epcc.edu>.

Please let me know as soon as possible if you plan to nominate someone, but no later than December 3, 2003; the completed nomination “packet” is due no later than January 6, 2004. You can mail the nomination form and the rest of the documentation for your nominee to me, at 6917 Orizaba, El Paso, TX 79912.

Our Section has many good teachers, and this is a chance to recognize them! Please consider nominating one of your colleagues.

3. SECTION MEETING, APRIL 2004 (John Hagood John.Hagood@NAU.EDU)

The 2004 Joint Meeting of the Southwestern Section of the MAA and ArizMATYC will be held April 2-3 on the Northern Arizona University campus. Polya lecturer David Bressoud of Macalester College and current College Mathematics Journal editor Underwood Dudley of DePauw University will be featured speakers at the meeting.

The scientific program will include sessions on mathematics at all levels, teaching of mathematics at all levels, and workshops. A special session on the use of visualization in the classroom is planned. Other events include a Friday evening banquet and, as desired, tours of area attractions.

Proposals for minicourses, workshops, special sessions or other events should be submitted by January 15, 2004. Titles and abstracts for talks (generally 20-25 minutes in length) are due by March 12, 2004. Please send submissions via email to <John.Hagood@nau.edu> or <Janet.McShane@nau.edu>, or via hard copy to either of the above at Department of Mathematics and Statistics, PO Box 5717, Northern Arizona University, Flagstaff, AZ 86011-5717.

More information will be posted at <<http://math.nau.edu>>.

4. SECTIONAL NEWS

Eastern New Mexico University (by Kathleen Salter <Kathleen.Salter@enmu.edu>)

The National Science Foundation has awarded a grant of \$274,520 to Eastern New Mexico University for computer science, engineering, and mathematics scholarships. A student may receive a renewable scholarship of up to \$3,125 per year. The grant runs through August of 2007, and is under the direction of Dr. Thomas R. Brown, assistant professor of computer science, and Dr. Mohamad H. Ahmadian, professor of electronics engineering technology.

ENMU received \$5,000 contributions from PNM and XCEL Energy in support of the NM AMP activities at ENMU.

ENMU research group utilizes a computer simulation to investigate the effects of territory characteristics and swimming rules on encounter-rates for coral-reef fish. Josh

Jowers is an ENMU Computer Science student who has been working with Dr. Tom Brown of the ENMU Mathematical Sciences department and Dr. Marv Lutnesky of the ENMU Biology department to investigate the effects of territory characteristics and swimming rules on encounter-rates of sex-changing coral-reef fish. The work has been funded with New Mexico Alliance for Minority Participation (New Mexico AMP) and ENMU Internal Research Grant monies.

Regina Aragón, Tom Brown, and John George attended the March 2003 SAUM Assessment Workshop and developed a plan to assess the Bachelor of Science in Mathematics program at ENMU. The team planned to assess student outcomes in three courses (specifically Calculus I, Foundations of Higher Mathematics, and Abstract Algebra I). One phase of this assessment is complete, and another phase is currently underway. The team will present results at a follow-up meeting in January.

El Paso Community College (by Joanne Peebles <JoanneP@epcc.edu>)

The Transmountain Campus at EPCC held a workshop for all full and adjunct Mathematics faculty on the Saturday before classes began. We used the time to share teaching techniques and new ideas to try in the classroom. We also had one of our counselors, Lorelee Tucker, talk to us about the various learning styles – to make us, as teachers, more aware of how our students learn. Houghton-Mifflin Publishing Company helped make this day a success by providing our lunch. It was a day well spent!

Glendale Community College (by Anne Dudley <anne.dudley@gmail.maricopa.edu>)

GCC continues to thrive. This fall, of GCC's 20,000 students, we have about 9000 enrolled in a math class. GCC North, our satellite campus now has one full-time math instructor, John Grima, a transplant from our main campus.

We hired three new faculty members this year. Bill Bonnell joins us from Kalamazoo Valley CC in Michigan. His masters is from University of Pittsburgh, and he enjoys reading history and watching college basketball. Kevin Fitzgerald joins us from Moon Valley HS, where he taught for 14 years. His masters is from ASU, and he enjoys coaching and football. (Trivia Quiz: Kevin played football for the Pros, but which team and when?) Amy Volpe is a recent graduate of ASU with a masters in Statistics and she soon will complete a masters in Mathematics. When not working on PowerPoint presentations for her classes, Amy coaches swimming and diving.

New Mexico State University (by Robert Smits <rsmits@nmsu.edu>)

NMSU hired three new faculty this past Spring:

Mary Ballyk--Ph.D. 1994, McMaster University, Area: Mathematical Biology, more specifically. Mathematical Models Involving Multiple Resource Limitation.

Jens Funke--Ph.D. 1999, University of Maryland, Area; Number theory, more specifically, Rational quadratic divisors and automorphic forms.

Maria Cristina Mariani--Ph.D. 1992, University of Buenos Aires, Area: Analysis, more specifically, Nonlinear partial differential equations, Nonlinear problems with applications to Physics and Finance, Numerical Methods, Stochastic Processes, Statistical Mechanics, Mathematical Physics and Neural Networks

One faculty member was promoted:

Sue Schibel, promoted to College Assistant Professor.

The summer activities of the faculty included:

Guram Bezhanishvili, David Pengelley and Jerry Lodder writing historically based materials for courses in algorithm design, discrete mathematics and logic. The work is supported by an NSF grant through the Division of Undergraduate Education.

Travelling News for the Summer:

Guram Bezhanishvili, Mai Gehrke, John Harding, Elbert and Carol Walker and Pat Morandi attended a conference in Tbilisi Georgia. Ross Staffeldt was in Osnabrueck, Germany working with collaborators. Hung Nguyen worked at the Office of Naval Research where he is a Distinguished Faculty Fellow. Tiziana Giorgi and Robert Smits attended an interdisciplinary conference in Granada, Spain and Tiziana gave a talk on superconductivity in Toronto.

Robert Smits attended a conference on Levy Processes in Paris and participated in a mathematical finance conference in l'Aquila, Italy.

Currently in the department:

Lolina Alvarez, NMSU, will offer the minicourse "Incorporating discrete mathematics in the preparation of K-12 mathematics teachers" at the Joint Annual Meetings in Phoenix, Arizona, January 7-10, 2004. This minicourse is a revised version of minicourses on the same topic offered in San Diego, 2002, and Baltimore, 2003.

There is continued work on the grant from the Division of Undergraduate Education at the NSF for the development of curricular materials based on primary historical sources for courses in discrete mathematics, computer science, logic and algorithm design. The Principal Investigators are Hing Leung and Desh Ranjan of Computer Science, and Guram Bezhanishvili, Jerry Lodder and David Pengelley of Mathematics.

A NSF proposal was submitted by Tiziana Giorgi, Joe Lakey, Adam Sikora and Robert Smits together with Cristina Pereya of the University of New Mexico to continue the successful "New Mexico Analysis Seminar".

New Mexico Tech (by Brian Borchers <borchers@nmt.edu>)

Brian Borchers has completed his three year term as chairman of the math department. He will be on sabbatical at the Institute for Pure and Applied Mathematics at UCLA this fall. Bill Stone has taken over as chairman. Bill was recently promoted to full professor. This fall, the department is welcoming three new assistant professors- Tae Chang Jo and John Starret in applied mathematics and Oleg Makhnin in probability/statistics.

Northern Arizona University

(by John Hagood <John.Hagood@NAU.EDU>)

Michael Falk is co-organizing the Special Session on Geometry and Combinatorics at the January 2004 Joint Mathematics Meetings in Phoenix with Eva-Maria Feichtner and Dmitry Kozlov of ETH-Zürich. Preceding the meeting, there will be a two-day Workshop on Geometry and Combinatorics at

NAU, January 4-5. Details will appear at <http://www.math.ethz.ch/~feichtne/>. The department added two new assistant professors, Jeff Shamatha (University of Colorado) in mathematics education and Jin Wang (University of Texas at Dallas) in statistics. Jeff and Amy Rushall are away for the year, Jeff working on his doctorate at the University of Nebraska and Amy teaching school in Lincoln. The department had an exceptionally successful REU program this past summer. There was no skating in the halls and the students produced good mathematics. Of our undergraduates, Chris Belford completed an REU program at LSU and Theresa Johnston completed one at Texas A&M.

Pima Community College, West Campus (by Paul Flasch
<pflasch@west.cscwc.pima.edu>)

Yvonne Brown has succeeded Ellen Caldwell as Chair.

We are continuing to implement common final examinations in our developmental algebra courses.

Last Spring our AMATYC contest entrants placed second in the Southwestern Region. Also, we held a poster exhibit during Math Awareness Month.

University of Arizona (by Richard B. Thompson <rbt@math.arizona.edu>)

The MAA has now published Mathematics for Business Decisions Part 1 and Part 2, by Richard Thompson and Christopher Lamoureux. These e-texts are distributed as boxed software, with installation CD's and Student Notebooks. We are conducting workshops on the new material at MAA section meetings, the joint mathematics meetings, and at MathFests.

On June 17, 2003, the MAA invited Richard Thompson and two Mathematics for Business Decisions students to Washington, DC for a Coalition for National Science Funding Exhibition and Reception in the Rayburn Office Building. A report on this visit appeared in the August/September 2003 issue of FOCUS.

UNM - Valencia (by Michele Diel <diel@unm.edu>)

Dr. Julie DePree, a recipient of the Mathematics Association of America South West Section Award for Distinguished College Teaching of Mathematics, was awarded promotion and tenure at the University of New Mexico - Valencia Campus this year. Dr. DePree is well known around the state for her contributions in mathematics education.

Western New Mexico University (by Tom Gruszka <tpeter@cs.wnmu.edu>)

George Atkinson was hired on full time as an Assistant Professor. George served our department last year in a visiting capacity.

DeAnne Miller was promoted to Full Professor of Mathematics, and Doug Medin was promoted to Associate Professor of Computer Science.