

**PROJECT NExT**  
**NEW EXPERIENCES IN TEACHING**  
**2002-2003 FELLOWS, BOULDER, CO**

A program of

**THE MATHEMATICAL ASSOCIATION OF AMERICA**

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**THE ASSOCIATION OF MATHEMATICS TEACHER EDUCATORS**

**THE GREATER MAA FUND**

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## **2002-2003 Project NExT Fellows Boulder Program, July-August 2003**

Except as noted, all rooms are in the Williams Village complex on the University of Colorado campus. The Project NExT registration area is in the lobby of Darley Commons in Williams Village.

### **TUESDAY, JULY 29**

**8:00 – 10:00 p.m.** Social Event for all Project NExT Fellows and invited guests  
**Outside Stearns Towers**

### **WEDNESDAY, JULY 30**

**7:00 – 8:05 a.m.** BREAKFAST

**8:15 – 9:30 a.m.** TWO concurrent sessions

**A.** *Labs and Projects Appropriate for Calculus Courses*  
**Stearns 177**

The goals of this swap session are to start an archive of labs and projects that can be accessed on the forest dot web page (with the permission of the authors), and to discuss pros, cons, and strategies involved in individual labs and projects. Various forest dot Fellows will present their labs and projects. Copies of labs and projects will be available at the session.

Moderators: Manmohan Kaur, Benedictine University  
Joshua Laison, Colorado College

**B.** *Strategies for Starting and Sustaining Good Discussions in Class*  
**ECCR 179**

Panelists: Craig Johns, University of Colorado at Denver  
Michael Orrison, Harvey Mudd College  
Don Lawrence, Occidental College  
Lew Romagnano, The Metropolitan State College of Denver

Do you ever find yourself lecturing to a group of students who sit back and listen but never interact? Discussions in class provide a variety of benefits: they help students grasp the material, provide information for assessment of their understanding, and incorporate variety for a more enjoyable class! In this panel, we will hear ideas from different perspectives on how to enhance your teaching through generating discussion in the classroom. Our panelists will present their ideas and approaches, and afterwards we will discuss them and brainstorm about other ways to generate discussion.

Organizer: Johanna Hardin, Pomona College

**9:35 – 10:05 a.m.** BREAK  
**Near Stearns 178**

**WEDNESDAY, JULY 30** (continued)

**10:10 -- 11:25 a.m.** TWO concurrent sessions

**A. *On-Line Assessment***

**Stearns 177**

Panelists: Mike Gage, University of Rochester  
Leah Berman, Ursinus College  
Michael Fraboni, Moravian College  
Marc Renault, Shippensburg University

In recent years numerous on-line assessment methods have been developed: WebWork, Alice Interactive Mathematics (AIM), Calculus On the Web (COW), and MapleTA™ are but a few. We will address issues both abstract and practical surrounding the use of on-line assessment, which may include requirements for setting up such systems, how much work is required of the instructor, and what classes or testing situations lend themselves to the use of these systems. In addition, we hope to have some discussion on what types of questions can and cannot be asked in on-line situations and how each system attempts to deal with academic dishonesty.

Organizer: Jon Breitenbucher, The College of Wooster

**B. *Teaching a Class Better the Second Time Around***

**Stearns 179**

Panelists: Teri Jo Murphy, University of Oklahoma  
Wendy Weber, Central College  
Tim Ray, Southeast Missouri State University

Teaching any mathematics course for the very first time can be an intimidating experience. This panel discussion will focus on what comes NExT...how to improve one's teaching performance given a second chance with the same course. Our panelists, mainly "seasoned" faculty members, will present the strategies, hints and lessons they have learned from being in exactly this situation. Following the panelists' presentations will be a period of time devoted to questions and answers along with opinions and ideas shared by the audience.

Organizer: Russell Goodman, Central College

**11:30 – 12:30 p.m.** Small group discussions with other Project NExT Fellows.

[For these sessions we will be splitting geographically. Please attend the group that includes the state or province where your institution is located.]

Group A - AB, AK, AZ, CA, HI, ID, MT, NM, NV, OR, UT, WA - **Stearns 178**

Group B - CO, IA, MN, ND, NE, SD, WY - **Darley 101**

Group C - AR, KS, LA, MO, MS, OK, TX - **Darley 200**

Group D - IL, WI – **Darley 402**

Group E - IN, MI, OH – **Darley 100**

Group F - DE, KY, PA, WV – **Darley 103**

Group G - AL, FL, GA, NC, SC, TN, VI – **Stearns 179**

Group H - DC, MD, Metropolitan NYC (ZIP codes 10000-11999 and 12400-12799), NJ, VA – **Stearns 177**

Group I - CT, MA, ME, NF, NH, NS, NY (ZIP Codes 12000-12399 and 12800-14999), RI, VT – **Darley 400**

**WEDNESDAY, JULY 30** (continued)

**12:35 – 1:30 p.m.** LUNCH

**2:00 – 3:15 p.m.** TWO concurrent sessions

**A. *Venturing into Textbook Writing*  
Stearns 177**

Presenters: William Briggs, University of Colorado at Denver  
Stephen Davis, Davidson College  
Anthony Peressini, University of Illinois at Urbana-Champaign  
Greg Tobin, Vice President and Publisher, Addison-Wesley  
Mathematics

Lisa Townsley, Benedictine University

The idea of writing a textbook can include such attractive notions as putting one's thoughts on a topic in print, bringing a part of the educational process to a larger, more diverse set of students, and formally distributing one's innovations in teaching. However, there are also the daunting tasks that include contacting a publisher, meeting deadlines for writing and corrections, working on new editions, and creating exercises and problem sets. In this session, a panel of authors will discuss their experiences in publishing textbooks and share advice for someone who is interested in the process. The goal of the session is to supply the participant both with an idea of where to begin in textbook writing and also with the knowledge of what may lie ahead.

Organizers: Manmohan Kaur, Benedictine University  
Timothy Chartier, Davidson College

**B. *Lessons Learned in the First Year(s)*  
Stearns 179**

This swap session will feature several forest dots making brief presentations (3-5 minutes) on lessons they have learned in their first year or two. Topics may go beyond the big three (teaching, research, and service) to include department politics, balancing family life with career demands, keeping the platters spinning, and many others. Following each presentation, there will be time to swap ideas.

Organizers: Trisha Bergthold, San Jose State University  
Wayne Tarrant, Western Kentucky University

**3:15 – 3: 55 p.m.** BREAK  
Near Stearns 178

**3:55 – 5:45 p.m.** *Closing Session*  
Recognition of 2002-03 Fellows  
Presentation: *Finding your Niche in the Profession*  
Joseph A. Gallian, University of Minnesota, Duluth  
Second Vice President, The Mathematical Association of America  
Stearns 178

**WEDNESDAY, JULY 30** (continued)

**7:30 – 9:30 p.m.**      *Mathfest Opening Banquet*

Master of Ceremonies: David Stone, Georgia Southern University

Presentation by Tom Noddy – *Bubble Magic: Science and Soap Films*

**Project NExT Courses during the Mathfest:**

Four-hour courses meeting on the afternoons of **Thursday and Friday, July 31 and August 1.** (Courses A, B, and C meet at **1:00 – 3:00 p.m. on both days**; Courses D, E, and F meet at **3:15 – 5:15 p.m. on both days.**) These rooms are in the Engineering Center.

- A.      *Graphing Calculators and Data Collection in Calculus and Below* – Joseph Fiedler, California State University, Bakersfield, **ECCR 133, 1:00 – 3:00 p.m.**
- B.      *Undergraduate Research -- How to Make It Work*, Aparna Higgins, University of Dayton **ECCR 1B55, 1:00 – 3:00 p.m.**
- C.      *Getting Your Research off to a Good Start/Applying for Research and Education Grants* - Joseph Gallian, University of Minnesota, Duluth (**ECCR 1B51**), and Lloyd Douglas, National Science Foundation (**ECCR 105**), **1:00 – 3:00 p.m.**
- D.      *Cooperative Learning in Calculus* – Karen Rhea, University of Michigan, **ECCR 1B51, 3:15 – 5:15 p.m.**
- E.      *Planning and Teaching Mathematics Courses for Elementary and Secondary Pre-service Teachers* – Hortensia Soto-Johnson, Colorado State University, Pueblo, **ECCR 1B55. 3:15 – 5:15 p.m.**
- F.      *Teaching an Introductory Statistics Course* -- Robin Lock, Saint Lawrence University, **ECCR 105, 3:15 – 5:15 p.m.**