

**PROJECT NExT**  
**NEW EXPERIENCES IN TEACHING**  
**2010-2011 FELLOWS**

**Workshop held in Lexington, Kentucky**  
**August, 2011**

A program of

**THE MATHEMATICAL ASSOCIATION OF AMERICA**

Major funding is provided by

**THE EXXONMOBIL FOUNDATION**  
**THE DOLCIANI P. HALLORAN FOUNDATION**

and additional support by

**THE EDUCATIONAL ADVANCEMENT FOUNDATION**  
**THE AMERICAN MATHEMATICAL SOCIETY**  
**THE AMERICAN INSTITUTE OF MATHEMATICS**  
**THE AMERICAN STATISTICAL ASSOCIATION**  
**THE NATIONAL COUNCIL OF TEACHERS OF MATHEMATICS**  
**THE ASSOCIATION FOR SYMBOLIC LOGIC**  
**THE ILLINOIS SECTION OF THE MAA**  
**THE MD/DC/VA SECTION OF THE MAA**  
**THE METRO NEW YORK SECTION OF THE MAA**  
**THE MICHIGAN SECTION OF THE MAA**  
**THE SOUTHEASTERN SECTION OF THE MAA**  
**THE W. H. FREEMAN PUBLISHING COMPANY**  
**JOHN WILEY & SONS**  
**THE MATHEMATICAL ASSOCIATION OF AMERICA**

We gratefully acknowledge their support.

**Project NExT: New Jobs, New Responsibilities, New Ideas**

**Program for the Workshop in Lexington, Kentucky  
August 2011**

**Location:** Hyatt Regency Lexington Hotel, with check-in at the Patterson Ballroom Suite

**TUESDAY, AUGUST 2**

**8:00 - 10:00 pm** Social Event for 2010-2011 and 2011-2012 Project NEXT Fellows and presenters – **Regency Ballroom 1**

**10:00 pm - ?** INFORMAL SOCIALIZING

**WEDNESDAY, AUGUST 3**

**8:15 - 9:30 am** TWO concurrent sessions

**A. *The effect of online homework on student learning and retention***

**Hyatt Suites Woodford-Scott**

Panelists: Robert Allen, University of Wisconsin-LaCrosse  
Andy Bennett, Kansas State University  
Gavin LaRose, University of Michigan  
Lisa Townsley, University of Georgia

In the push to use technology in academia, many are interested in using online homework in undergraduate mathematics courses. In this session, we will discuss the benefits and drawbacks of online homework, the various options in choosing an online homework system, and the issues that may arise when using this technology. Our panel of experts will discuss practical suggestions and techniques for using online homework effectively, balancing online and written assignments, getting students on-board with online assignments, and proper assessment of online work to ensure the best effect on student learning.

Organizers: Joanna Bieri, University of Redlands  
Katherine Heller, North Central College  
William Heuett, Marymount University  
Aminul Huq, University of Minnesota Rochester

## WEDNESDAY, AUGUST 3 (cont'd)

### 8:15 - 9:30 am B. *Spending your summers effectively and efficiently*

#### **Kentucky**

Panelists: Art Benjamin, Harvey Mudd College  
Annalisa Crannell, Franklin and Marshall College  
Deanna Haunsperger, Carleton College  
Jeremy Nadolski, Benedictine University

It is amazing how drastically our lives change when summer comes around. Many of us have greatly reduced professional responsibilities, and hence we have much more freedom, both personally and professionally. But, what is an effective way to spend that time? For example, since we'll most likely have more time to work on research, what are some research opportunities that we can take advantage of over summer that may not exist, or may not be feasible, during the academic year? Should we teach a summer class? Are there service or outreach opportunities we should be taking? How can we take advantage of other non-academic opportunities to earn income, such as consulting work? And, above all, how can we be professional and also give ourselves a much-needed break as well as take on potentially increased family responsibilities? This session and its panelists will aim to address these issues so that we can all have more productive, worthwhile, and hopefully fun summers!

Organizers: Anthony DeLegge, Benedictine University  
Melissa Desjarlais, Valparaiso University  
Daniel Galiffa, Penn State Erie  
Anne Yust, Birmingham-Southern College

### 9:35 - 10:05 am BREAK – Regency Ballroom 1

### 10:10 - 11:25 am TWO concurrent sessions

#### A. *Bridging the gap between high school and college: how to provide the skills necessary for under-prepared students to succeed*

#### **Hyatt Suites Woodford-Scott**

Panelists: Ray Heitger, Bowling Green University  
Annela Kelly, Roger Williams University  
Pamela Richardson, Westminster College  
Michael Scott, California State University Monterey Bay

The American Association of Colleges and Universities (AAC&U) reports that "53% of students entering our colleges and universities are academically under-prepared, i.e., lacking basic skills in at least one of the three basic areas of reading, writing or mathematics" (Tritelli, 2003). As math educators, we find that our classrooms of precalculus, calculus and statistics students are comprised of those students who are well-prepared and those that are under-prepared. The question is, how do we effectively teach groups with drastically diverse backgrounds? We will identify some of the challenges facing both teachers and students in higher education today as well as offering suggestions for easing the transition, including: successful remediation programs, ways to incorporate remediation into the classroom directly, and helping students outside the classroom.

Organizers: Papiya Bhattacharjee, Penn State Erie  
Justin Brown, Olivet Nazarene University  
Judith Canner, California State University, Monterey Bay  
Kevin Murphy, St. Norbert College

**WEDNESDAY, AUGUST 3 (cont'd)**

**10:10 - 11:25 am B. *Effective group projects***

**Kentucky**

Panelists: Dan Callon, Franklin College  
Tim Chartier, Davidson College  
Tina Hartley, United States Military Academy  
Linda McGuire, Muhlenberg College

Group projects are an important tool in facilitating a dynamic, interactive learning environment. By assigning well-designed projects, teachers not only encourage an active approach to learning, but also help students learn to collaborate. In this session, panelists will share their experiences with designing, facilitating, and assessing effective group projects.

Organizers: Mike Allocca, University of Scranton  
Brie Finegold, University of Arizona  
Heather Molle, Franklin College  
Eric Ruggieri, Duquesne University

**11:30 am - 12:15 pm Small Group Discussions with other Project NExT Fellows**

[This session is organized geographically. Please attend the group that includes the MAA Section – states/provinces indicated in parentheses – where your institution is located.]

**Group A - Kentucky**

Sections: Intermountain, Northern California/Nevada/Hawaii and Southern California/Nevada, and Pacific Northwest (AB, AK, CA, HI, ID, MT (except zips 59715-59717), NV, OR, UT, WA).

**Group B – Kentucky**

Sections: Kansas, Nebraska, North Central, and Rocky Mountain (CO, KS, MB, MN, MT (zips 59715-59717), ND, NE, SD, WY)

**Group C - Patterson Ballroom E**

Sections: Louisiana/Mississippi, Oklahoma/Arkansas, Southwestern, Texas (AR, AZ, LA, MS, NM, OK, TX)

**Group D - Patterson Ballroom F**

Sections: Illinois, Iowa, Missouri (IL, IA, MO)

**Group E - Patterson Ballroom G**

Sections: Indiana, Michigan, Wisconsin (IN, MI, WI)

**Group F - Hyatt Suites Franklin**

Sections: Allegheny Mountain, Kentucky, Ohio (KY, OH, PA (zips 15000-16899), WV)

**Group G - Hyatt Suites Woodford-Scott**

Sections: Florida, Southeastern (AL, FL, GA, NC, PR, SC, TN, VI)

**Group H - Hyatt Suites Jessamine**

Sections: EPaDel, Maryland/DC/Virginia, New Jersey (DC, DE, MD, NJ, PA (zips 16900-19699), VA)

**Group I - Patterson Ballroom A**

Sections: Metro New York, Northeastern, Seaway (CT, MA, ME, NF, NH, NS, NY, ON, QC, RI, VT)

**12:15 - 1:30 pm LUNCH – Regency Ballroom 1**

**WEDNESDAY, AUGUST 3 (cont'd)**

**1:35 - 2:50 pm** TWO concurrent sessions

**A. *Math students: You know you want them, but how do you get them and keep them around?***

**Hyatt Suites Woodford-Scott**

Panelists: Joyati Debnath, Winona State University  
Sandy Ganzell, St. Mary's College of Maryland  
William Vélez, University of Arizona  
Holly Zullo, Carroll College

We all love math, and we want to help students discover this passion and develop a desire to take more mathematics courses and to major in the subject. This session will focus on effective ways to encourage students to take more mathematics at various levels, including methods and activities for recruiting math majors, ideas for encouraging non-majors to take more mathematics courses beyond the base requirements, and ways in which we can reach out to pre-college students to make them aware of the possibilities that come with studying mathematics.

Organizers: Daniel Daly, Southeast Missouri State University  
Katie Quertermous, James Madison University  
Kristine Roinestad, Georgetown College  
Huiya Yan, University of Wisconsin-La Crosse

**B. *Getting ready for tenure***

**Kentucky**

Panelists: Sheldon Axler, San Francisco State University  
Alissa Crans, Loyola Marymount University  
Jim Lewis, University of Nebraska - Lincoln  
Roland Minton, Roanoke College

One of the major concerns for junior faculty members is the tenure process. Earning tenure can be a daunting process, sometimes filled with uncertainty and distress. In this panel, junior faculty who have recently received tenure and colleagues who have made tenure decisions will share their diverse experiences and personal insights regarding the tenure process. In particular, our panelists will offer advice and tips on preparing a tenure dossier, talk about effective ways to document success in the three areas of research, teaching and service, and discuss how to address items in need of improvement.

Organizers: Jeff Boerner, Westminster College  
Geoff Goehle, Western Carolina University  
Silvia Saccon, University of Arizona  
Karin Saoub, Roanoke College

**3:25 - 3:55 pm** BREAK – **Regency Ballroom 1**

**3:55 - 5:25 pm** Closing Session – **Patterson Ballroom B-C-D**

Recognition of 2010-2011 Fellows

Presentation: *Finding Your Niche in the Profession*

Joseph Gallian, University of Minnesota Duluth

### WEDNESDAY, AUGUST 3 (cont'd)

- 6:00 – 7:30 pm** Mathfest Opening Reception (cash bar) – **East, Lexington Center**
- 7:30 - 9:00 pm** Mathfest Opening Banquet – **Grand Kentucky Ballroom, Hilton Hotel**
- 9:00 pm - ?** INFORMAL SOCIALIZING

### THURSDAY AND FRIDAY, AUGUST 4 AND 5

**Project NExT Courses During the Mathfest:** Four-hour courses meeting in the Hyatt Regency Lexington Hotel on Thursday and Friday, August 4 and 5.

- A. *When Life is Linear: Applications of Linear Algebra* – Tim Chartier, Davidson College, 1-3 p.m., **Patterson Ballroom B**
- B. *Teaching Math Content for Future K-8 Teachers* – Judith Covington, Louisiana State University, Shreveport, 1-3 p.m., **Patterson Ballroom C**
- C. *Undergraduate Research—How to Make It Work* – Aparna Higgins, University of Dayton, 1-3 p.m., **Patterson Ballroom D**
- D. *Cooperative Learning for Undergraduate Mathematics* – Bill Fenton, Bellarmine University, 3:15-5:15 p.m., **Patterson Ballroom C**
- E. *Mathematical Biology in the Mathematics Curriculum* – Raina Robeva, Sweet Briar College, 3:15-5:15 p.m., **Patterson Ballroom B**
- F1. *Applying for Grants from the National Science Foundation*, Dean Evasius, National Science Foundation, Thursday; *Getting Your Research Off to a Good Start*, Joe Gallian, University of Minnesota, Duluth , Friday; both days 3:15-5:15 p.m., **Patterson Ballroom D**
- F2. *Getting Your Research Off to a Good Start*, Joe Gallian, University of Minnesota, Duluth , Thursday; *Applying for Grants from the National Science Foundation*, Dean Evasius, National Science Foundation, Friday; both days 3:15-5:15 p.m., **Patterson Ballroom G**

---

We thank blue10 Project NExT Fellows Andrea Bruder, Colorado College, and Christopher Drupieski, University of Georgia , for coordinating the planning of the blue10 (2010-11) Fellows' sessions.

---

Project NExT (New Experiences in Teaching) is a professional development program of the Mathematical Association of America for new or recent Ph.D.s in the mathematical sciences who are interested in improving the teaching and learning of undergraduate mathematics. It addresses the full range of faculty responsibilities in teaching, research, and service.