

PROJECT NExT
NEW EXPERIENCES IN TEACHING
2013-2014 FELLOWS

Workshop held in Portland, OR
August 2014

A program of

THE MATHEMATICAL ASSOCIATION OF AMERICA

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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.

**Project NExT: New Jobs, New Responsibilities, New Ideas
Program for the Workshop in Hartford, CT
July - August 2013**

The Project NExT registration area will be in the Ballroom Foyer on the Ballroom Level of the Hilton Portland hotel.

All events are in the Hilton Portland hotel.

TUESDAY, AUGUST 5

8:00 - 10:00 pm Social Event for 2013-2014 and 2014-2015 Project NExT Fellows and Presenters – **Grand Ballroom I**

10:00 pm - ? (optional) INFORMAL SOCIALIZING

WEDNESDAY, AUGUST 6

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

A. 8:15 am - 9:30 am *Where is the Money? Grants Accessible to Junior Faculty*
Forum Suite, 3rd floor

Panelists: Charles Toll, National Security Agency, MD
Chad Topaz, Macalester College, MN
Judy Walker, University of Nebraska-Lincoln, NE
Lee Z. Zia, National Science Foundation, VA

Applying for grants is a complicated and sometimes unsuccessful endeavor, even for experienced faculty. As junior faculty, we are often not well-informed about opportunities and are keen to learn from senior faculty who have had success in receiving grants. In this panel, programs and grant opportunities that are accessible to junior faculty will be discussed. In addition, key components of, as well as common trends in, successful grant applications will be examined.

Organizers:

Alicia Prieto Langarica, Youngstown State University
Shirley Law, Washington College
Marco V. Martinez, North Central College
Lori Ziegelmeier, Macalester College

B. 8:15 am – 9:30 am *Independent Study Courses*

Galleria II, Ballroom Level

Panelists: Sloan Despeaux, Western Carolina University, NC
Michael Dorff, Brigham Young University, UT
Gizem Karaali, Pomona College, CA
Kendall Williams, United States Military Academy, NY

Independent study courses provide students with the opportunity to extend their mathematical knowledge in topics that fall outside the scope of formal courses while working individually with faculty. The purpose of this panel is to provide ideas for choosing topics which are suitable for this kind of course, and to discuss the details involved with running them. The panel will discuss defining course structure, assessing student progress, designing a syllabus, and preparing other course materials.

Organizers: William Abram, Hillsdale College
Malena Espanol, University of Akron
Daniel Moseley, Jacksonville University
Carmen Wright, Jackson State University

9:35 – 10:05 am **BREAK – Grand Ballroom I**

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

A. 10:10 – 11:25 am *Strategies for Improving Recruitment and Retention of Mathematics Majors*
Forum Suite, 3rd floor

Panelists: Tina Garrett, St. Olaf College, MN
Jennifer McLoud Mann, University of Washington Bothell, WA
Ron Taylor, Berry College, GA
Robert Vallin, Lamar University, TX

Strategies for improving recruitment and retention of mathematics majors is an important part of keeping our departments active and vibrant; administration also appreciates both these activities. While we hope to recruit and retain students by revealing the beauty of mathematics, this is not an easy task nor does it work for all students. We focus on a variety of methods from activities to build a community to strategies for sharing the many potential career paths outside of academia and the advantages of mathematics to engineers, chemists, business majors, etc. Our goal is to equip faculty with ideas for encouraging students to become mathematics majors or minors and giving tips on ways to organize and fund these events.

Organizers: Cesar Aguilar, California State University Bakersfield
Ashley Johnson, University of North Alabama
Ashley Rand, Bethany Lutheran College
Elizabeth Ribble, Metropolitan State University of Denver

B. 10:10 am - 11:25 pm *Transitioning to Research in Mathematics Education, Teaching, and Learning*

Galleria II, Ballroom Level

Panelists: Stuart Boersma, Central Washington University, WA
Paul Coe, Dominican University, IL
Angie Hodge, University of Nebraska at Omaha, NE
Mary Shepherd, Northwest Missouri State, MO

Four panelists from varying research backgrounds will present insights and reflection into their transitions to, and subsequent work, in Mathematics Education Research or Scholarship of Teaching and Learning (SoTL). Transitioning research can be difficult, especially when changing to a new field. Participants can expect to gain a better idea of what math education research and SoTL are, as well as guiding resources to help become acquainted with the fields. The goal of this panel is to provide attendees information about starting research in math education, working in SoTL, or taking their current pedagogical research in a new direction. Participants should leave with ideas of where to look for information on current topics and resources to begin their own research.

Organizers: Susan Crook, Loras College
Kathleen Grace Kennedy, Wentworth Institute of Technology
Melissa Tolley, Wingate University

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

(This session is organized by area of research. Please attend the group that best fits your research interests.)

Group A: Algebra, group theory, topological groups, linear algebra –
Directors Suite, 3rd floor

Group B: Commutative rings and algebras, algebraic geometry –
Council Suite, 3rd Floor

Group C: Geometry, topology, manifolds – **Forum Suite, 3rd floor**

Group D: Mathematics education, probability, statistics –
Studio Suite, 3rd floor

Group E: Combinatorics – **Galleria I, Ballroom Level**

Group F: Analysis, dynamical systems, ergodic theory, numerical analysis –
Galleria II, Ballroom Level

Group G: Applied mathematics, operations research –
Galleria III, Ballroom Level

Group H: Number theory, logic – **Parlor A, Ballroom Level**

Group I: Differential equations – **Parlor B, Ballroom Level**

Group J: Mathematical Biology – **Parlor C, Ballroom Level**

12:15 - 1:30 pm LUNCH – **Grand Ballroom I**

- 3:25 - 3:55 pm** **BREAK – Grand Ballroom I**

- 3:55 - 5:25 pm** **Closing Session – Grand Ballroom II**
 Recognition of 2013-14 Fellows
 Presentation: *Finding Your Niche in the Profession*
 Joseph Gallian, University of Minnesota Duluth

- 6:00 - 8:00 pm** Mathfest Grand Opening Reception, Portland Hilton, Exhibit Hall
 Attendance by both cohorts of Project NExT is expected at this event,
 which will have complimentary hors d’oeuvres and a cash bar. Please be
 there before 6:30 pm, when Project NExT Fellows will be recognized.

- 8:00 pm - ?** (optional) INFORMAL SOCIALIZING

THURSDAY AND FRIDAY, AUGUST 7 AND 8

Project NExT Courses During Mathfest: Four-hour courses meeting in the Portland Hilton on Thursday and Friday, August 7 and 8.

- A. *Visualizing Mathematics through GeoGebra and Other Software* – Barbara D’Ambrosia, John Carroll University, 1 - 3 pm, **Skyline 3, 23rd floor**
- B. *Undergraduate Research – How to Make It Work* – Aparna Higgins, University of Dayton, 1 - 3 pm, **Skyline 1, 23rd floor**
- C. *Teaching Mathematics Courses for Future Teachers* – Dale Oliver, Humboldt State University, 1 - 3 pm, **Skyline 4, 23rd floor**
- D. *Teaching Introductory Statistics* – Carolyn Cuff, Westminster College, PA, 3:15 - 5:15 pm, **Skyline 4, 23rd floor**
- E. (THU) *Getting your Research off to a Good Start* – Joe Gallian, University of Minnesota Duluth; (FRI) *Applying for Grants from the National Science Foundation* – Karen Marrongelle, Portland State University, both days 3:15 - 5:15 pm, **Skyline 1, 23rd floor**
- F. *Why, What, & How! Everything you Need to Know about Incorporating Sustainability into Mathematics Courses* – Thomas J. Pfaff, Ithaca College, 3:15 - 5:15 pm, **Skyline 3, 23rd floor**

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 We thank brown13 Fellows (2013-14 Project NExT Fellows) Susan Durst, University of Arizona, and Nathan Reff, State University of New York, Brockport, for coordinating the sessions organized by the brown13 Fellows.
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