

**The Project NExT Colloquium
at The Joint Mathematics Meetings in Baltimore
Wednesday, January 15 – Saturday, January 18, 2014**

Wednesday, January 15, 12:15 p.m. – Saturday, January 18, noon: The Project NExT Booth is #930, part of the MAA Pavilion in Exhibit Hall F, Level 100, Baltimore Convention Center.

Wednesday, January 15 – Saturday, January 18: The Project NExT Session Room is **Room 6D**, Baltimore Convention Center.

Project NExT Program Schedule

UNLESS OTHERWISE NOTED, ALL EVENTS ARE IN ROOM 6D, Baltimore Convention Center.

Wednesday, January 15

9:00 a.m. – 11:00 a.m.: Mathematics Education Swap Session

In this session participants will discuss issues related to the mathematics education of future teachers. In particular, we will be discussing content courses for future teachers at all levels – elementary, middle school and high school. Participants are encouraged to come prepared to share ideas that have worked for them and questions that they have for other participants. It is likely that the session participants will break up into small groups to discuss issues of interest. Organizer (Project NExT team): Judith Covington, Louisiana State University Shreveport

2:00 p.m. – 3:15 p.m.: Tried and true practices for IBL and active learning

Panel: Anna Davis, Ohio Dominican University
Dana Ernst, Northern Arizona University
Angie Hodge, University of Nebraska at Omaha

Inquiry-based learning (IBL) and active learning are increasingly popular approaches to mathematics instruction at the college level. While the merits of employing IBL and active learning techniques have been widely advertised, the transition to putting these techniques into practice in the classroom can be daunting. This panel seeks to equip faculty who are interested in using IBL and/or active learning with techniques that have previously proved successful. Panelists will discuss strategies for implementing IBL and active learning in the classroom, will provide specific examples of the day-to-day aspects of IBL and active learning, and will shed light on differentiating pedagogical methods to better fit upper versus lower level courses. The goal of this panel is for attendees to leave armed with several tried and true strategies to begin to implement IBL and active learning in the classroom.

Organizers (brown13 dots – 2013-2014 Project NExT Fellows):

Susan Crook, Loras College
William Lindsey, Indiana University at Kokomo
Taylor Martin, Sam Houston State University
Lola Thompson, Oberlin College

Thursday, January 16

9:00 a.m. – 10:15 a.m.: Implementing a new course at your institution

Panel: Amy Cohen, Rutgers University
Darren Glass, Gettysburg College
Sarah Greenwald, Appalachian State University
Charles Lam, California State University at Bakersfield

Introducing a new course into the curriculum can be an exciting opportunity to introduce students to a new area of mathematics, or to address changing needs in the broader college curriculum and in industry. However, developing a new course can be a daunting task for an early career faculty member. This panel aims to provide junior faculty with helpful tips for successfully implementing new courses at their institutions. Panelists will address topics including how to convince a skeptical administration that your new course is a good idea, the logistics of proposing and implementing a new course, and pitfalls to avoid.

Organizers (brown13 dots – 2013-2014 Project NExT Fellows):
Cesar Aguilar, California State University at Bakersfield
Emily Cilli-Turner, Salve Regina University
Susan Durst, University of Arizona
David McCune, William Jewell College

1:00 p.m. – 2:00 p.m.: Open Discussion with the Fellows' Department Chairs and Heads

The institutions where the Project NExT Fellows work make a substantial commitment to Project NExT by supporting the travel and lodging needed for the Fellows' participation in Project NExT. In addition to providing background information about Project NExT, this discussion between the leaders of Project NExT and the chairs and heads of departments of mathematics will address two questions: How can institutions get the most out of their investment in Project NExT, and how can Project NExT best help mathematics departments? Department chairs or heads for Fellows from all years are invited.

Organizers (Project NExT team):
Julie Barnes, Western Carolina University
Judith Covington, Louisiana State University Shreveport
Matt DeLong, Taylor University
Aparna Higgins, University of Dayton
Steven Schlicker, Grand Valley State University

2:15 p.m. – 4:15 p.m.: Project NExT – Young Mathematicians' Network Poster

Session

Exhibit Hall G, 100 Level, Baltimore Convention Center
(This session is open to everyone attending the meetings.)

Organizers: Michael Axtell, University of St. Thomas (gold dot, 2000-01 Project NExT Fellow)
Kim Roth, Juniata College (forest dot, 2002-03 Project NExT Fellow)

4:35 p.m. - 5:50 p.m.: Math-related service activities and outreach

Panel: Dave Auckly, Kansas State University
Kiran Kedlaya, University of California at San Diego
Eve Torrence, Randolph Macon College
Talithia Williams, Harvey Mudd College

Service to the department and community outreach are integral parts of our profession. They can be both very rewarding and challenging. The purpose of this panel is to provide ideas for what types of service and outreach can be done, and to discuss how to fund and implement these ideas. In particular, we will focus on how to advise clubs (Pi Mu Epsilon, MAA, SIAM, AWM, Math Clubs, etc.), run math contests and problem solving sessions, organize workshops for students at a variety of levels, and organize and run Math Teachers Circles.

Organizers (brown13 dots – 2013-2014 Project NExT Fellows):

Malena Espanol, The University of Akron
Nathan Reff, Alfred University
Dan Roberts, Illinois Wesleyan University
Lori Ziegelmeier, Macalester College

4:25 p.m. – 5:25 p.m.: Joint Prize Session
Ballrooms I&II, 400 Level, Baltimore Convention Center
(This session is open to everyone attending the meetings.)

5:30 p.m. – 6:30 p.m.: Joint Prize Session Reception
Ballrooms I&II Lobby, 400 Level, Baltimore Convention Center
(This session is open to everyone attending the meetings.)

6:30 p.m. – 8:30 p.m.: The Legacy of R. L. Moore Project – Educational Advancement Foundation Reception
(in partnership with Project NExT)
Key Ballroom 6, Second Floor of the Hilton Baltimore

~~Level~~

Meet other Project NExT Fellows and find out more about inquiry-based learning and the Legacy of R. L. Moore Project. Appetizers and refreshments will be served at this private reception.

Friday, January 17

8:00 a.m. – 9:15 a.m.: Group work and class discussions

Panel: John Boller, University of Chicago
Rachelle DeCoste, Wheaton College (MA)
Brian Katz, Augustana College
Hortensia Soto-Johnson, University of Northern Colorado

As we strive to create a student-centered classroom, many instructors want to implement active-learning strategies like group-work and whole-class discussion, where students actively participate, ask questions, answer questions, and make meaning as a group or class. However, instructors can face challenges (both anticipated and unanticipated) such as keeping students on track, managing group dynamics, getting students to contribute, and addressing individual needs of each student and group. In this session a variety of experienced professors will share their personal experiences on what issues they have confronted in implementing these strategies in their own classrooms, and how they have addressed them.

Organizers (brown13 dots – 2013-2014 Project NExT Fellows):

Andrew Greene, Manhattan College
Melissa Tolley, Wingate University
Daniel Wang, Trinity College
Nina White, University of Michigan

9:30 a.m. – 10:45 a.m.: Nuts and bolts of undergraduate research

Panel: Michael Dorff, Brigham Young University
Carlos Castillo-Chavez, Arizona State University
Emek Köse, Saint Mary's College of Maryland
Jo-Ellis Monaghan, Saint Michael's College

Research conducted under the supervision of faculty is becoming an increasingly important part of the undergraduate mathematics experience at research universities and liberal arts colleges alike. Those hoping to supervise undergraduate research face unique challenges, logistical, mathematical, financial, and otherwise. The panelists will discuss some of these challenges, including how to start and fund a program, pick projects, oversee research, set appropriate expectations, and choose appropriate research topics. Other topics will include finding and promoting research opportunities for students both during the academic year and over the summer, the different forms of undergraduate research among a diverse body of institutions, and the nuances of the publication process for undergraduate research.

Organizers (brown13 dots – 2013-2014 Project NExT Fellows):

William Abram, Hillsdale College
Megan Heenehan, Eastern Connecticut State University
Marco Martinez, North Central College
Andrea Overbay, Austin College

1:00 p.m. – 2:00 p.m.: Session for consultants for the brown13 Project NExT Fellows

In this session, we invite consultants for the brown13 Project NExT Fellows (2013-14 Fellows) to share ideas about how to be effective consultants.

Organizers (Project NExT team):

Judith Covington, Louisiana State University Shreveport

Matt DeLong, Taylor University

Aparna W. Higgins, University of Dayton

**2:30 p.m. – 3:50 p.m.: MAA Presentations by MAA Teaching Award Winners
Recipients**

Room 308, Baltimore Convention Center

(This session is open to everyone attending the meetings.)

This session consists of presentations by recipients of this year's Haimo Award for Distinguished College or University Teaching. Andrew Bennett, Kansas State University, has been a presenter for Project NExT. Gavin LaRose, University of Michigan, is a red dot (1994-1995 Project NExT Fellow, and he is known to most Project NExT Fellows because of his service on the Project NExT leadership team from 1997 to 2012. Gavin is the sixth Project NExT Fellow to win a Haimo Award.

8:00 p.m. – 10:00 p.m.: Project NExT Reception

Stadium Ballroom 1, 2, & 3, 2nd floor, Marriott Inner Harbor

(This event is open to everyone attending the meetings.)

Enjoy meeting Project NExT Fellows, Section NExT Fellows, consultants, and other friends of Project NExT. There will be complimentary desserts and a cash bar.

Saturday, January 18

**9:30 a.m. – 10:45 a.m.: Assessment of student learning that complements
nontraditional teaching methods**

Panel: Bonnie Gold, Monmouth University

Ann Stewart, Hood College

Robert Talbert, Grand Valley State University

Stan Yoshinobu, California Polytechnic State University

One of the hallmarks of a well-designed course is the alignment of learning objectives, teaching and learning activities, and assessment of student learning. The incorporation of nontraditional teaching methods, such as flipped classrooms, inquiry-based learning, peer instruction, and cooperative learning, into courses often necessitates a change in assessment style. Grading only homework, quizzes, and exams may not be the best way to evaluate what students have learned. Panelists will discuss their experiences with a variety of assessment methods suited to different teaching methods. Although the focus will be on summative assessment methodologies to evaluate student learning and determine grades, panelists will also identify opportunities for faculty to incorporate formative assessment to monitor student learning and provide ongoing feedback to help students continually improve their skills.

Organizers: Mitchel T. Keller, Washington and Lee University
Melissa Lindsey, Indiana Wesleyan University
Yanping Ma, Loyola Marymount University
Kristin McCullough, Grand View University

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Project NExT (New Experiences in Teaching) is a professional development program 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 is a program of the Mathematical Association of America with major funding from the Mary P. Dolciani Halloran Foundation, and additional funding from the Educational Advancement Foundation, the American Mathematical Society, the American Statistical Association, the National Council of Teachers of Mathematics, the American Institute of Mathematics, the Association for Symbolic Logic, the 2010-11(blue10) Project NExT Fellows, the 2011-12(peach11) Project NExT Fellows, the Illinois Section of the MAA, the Indiana Section of the MAA, the MD/DC/VA section of the MAA, the Southeastern section of the MAA, the W.H. Freeman Publishing company, the Mathematical Association of America, and individual donors. The ExxonMobil Foundation was a founding sponsor (from 1994 to 2011). We are grateful to all our donors.

~~Educational Advancement Foundation, the American Mathematical Society, the American Statistical Association, the National Council of Teachers of Mathematics, the Association for Symbolic Logic, W. H. Freeman Publishing Company, John Wiley & Sons, MAA Sections and the Mathematical Association of America.~~ More information about Project NExT can be found at <http://archives.math.utk.edu/projnext/>.

We thank brown13 Project NExT Fellows Andrew Gainer-Dewar, Carleton College, and Mary Wilkerson, Coastal Carolina University, for coordinating the planning of the brown13 (2013-2014) Project NExT Fellows' sessions.

We also thank brown13 Project NExT Fellows Matt Holder, George Mason University, and Brittany Shelton, Albright College, for organizing the staffing of the Project NExT booth.

The 2013-14 Fellows are the 20th group of Project NExT Fellows.