

**The Project NExT Colloquium
at The Joint Mathematics Meetings
in San Diego, California
Sunday, January 6–Wednesday, January 9, 2008**

Sunday, January 6, 12:15 p.m.–Wednesday, January 9, 1 p.m.: Project NExT Booth 527, part of the MAA exhibit area in Hall B1 of the San Diego Convention Center (SDCC)

Sunday, January 6–Wednesday, January 9: Project NExT Session Room, Room 6C, San Diego Convention Center

Project NExT Program Schedule

UNLESS OTHERWISE NOTED, ALL EVENTS ARE IN ROOM 6C, SAN DIEGO CONVENTION CENTER (SDCC).

Sunday, January 6

9:00 a.m.–10:20 a.m. *Tenure (and Promotion) – you know you want it*

Room 6E, SDCC

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

Panel: Steven Krantz, American Institute of Mathematics
Michael Orrison, Harvey Mudd College
Katherine McGivney, Shippensburg University

Once you get your tenure-track job, the next step is to get tenure and promotion. Although tenure and promotion policies vary from institution to institution, there are some general ways of helping the process go smoothly.

Organizers (co-sponsored with Young Mathematicians Network):

James Hamblin, Shippensburg University
Kimberly Roth, Juniata College

10:00 a.m.–noon: *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

Sunday, January 6 (cont'd)

noon–1 p.m.: *Mathematics Methods Swap Session*

In this session participants will discuss issues related to the mathematics education of future teachers. In particular we will be discussing methods 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

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

Poster Session Room, Exhibit Hall B, SDCC

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

Junior mathematicians who are no more than five years beyond their Ph.D.s will display their research.

Organizers (co-sponsored with Young Mathematicians Network):

Michael Axtell, Wabash College

Kevin E. Charlwood, Washburn University

2:30 p.m. - 3:45 p.m.: *Developing and Maintaining a Successful Undergraduate Research Program*

Panel: Michael Dorff, Brigham Young University

Peter Johnson, Auburn University

Michael Orrison, Harvey Mudd College

Carolyn Yackel, Mercer University

Undergraduate research programs are becoming more and more popular in institutions across the country. In this session, the panelists will address various topics including, but not limited to, choosing appropriate problems, acquiring funding, mentoring, and finding opportunities for publication and/or presentation of research.

Organizers (sun dots - 2007-08 Project NExT Fellows):

Brad Bailey, North Georgia College and State University

Robert Cohen, Western State College of Colorado

Angela Hodge, North Dakota State University

Trent Kull, Winthrop University

Rachel Levy, Harvey Mudd College

6:00 p.m.–8:00 p.m.: *The Legacy of R. L. Moore Project – Educational Advancement Foundation Reception (in conjunction with Project NExT)*

Coronado Room, San Diego Marriott Hotel

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.

Monday, January 7

8:30 a.m.–9:45 a.m.: *Early Career Grant Applications*

Panel: John B. Conway, George Washington University
Karen A. Marrongelle, Portland State University
Eric Rawdon, University of St. Thomas
Michelle D. Wagner, National Security Agency

Despite the importance of grant funding, most new faculty lack information about its sources and processes. The purpose of this panel is to help remedy this gap. Successful grant writers and reviewers from a variety of mathematical backgrounds will discuss their experience applying for and/or granting support. They will address such issues as how to find a funding source, how to develop a proposal, and what difficulties to expect when submitting applications. The last part of the session will be devoted to questions from the audience.

Organizers (sun dots - 2007-2008 Project NExT):

Zdenka Guadarrama, Rockhurst University
Hemanshu Kaul, Illinois Institute of Technology
Deborah Kent, Hillsdale College
Xiaoyue Luo, Linfield College
Carl Toews, Duquesne University

10:00 a.m.–noon: *Applying for Research and Education Grants/ Starting and Maintaining your Mathematical Research Program*

Presenters: Lloyd Douglas, National Science Foundation
Ezra A. Brown, Virginia Polytechnic Institute and State University

This is a shortened version of the Project NExT course offered to Fellows at Mathfest. The grant-writing presentation will cover topics such as general mathematical proposal writing pitfalls to avoid, incorporation of students in mathematical sciences projects, and various grant opportunities at the National Science Foundation. The research session will address questions of choosing areas of research and collaborators, deciding where to submit papers for publication, and finding time to work on research.

Organizers (Project NExT team):

Aparna Higgins, University of Dayton
T. Christine Stevens, Saint Louis University

1:00 p.m. - 2:15 p.m.: *Different Approaches to Bridge Courses*

Panel: Susanna S. Epp, DePaul University
Patricia McKenna, Metropolitan State College of Denver
Thomas Q. Sibley, Saint John's University, MN

To assist students in transitioning from problem-solving courses such as calculus and differential equations to upper-level, proof-intensive courses, many mathematics programs offer a bridge course, designed specifically to teach students how to read and write mathematical proofs. This session's focus is two-fold: to identify mathematical content ideal for a bridge course and to discuss pedagogical techniques for effectively teaching these topics. The panelists' presentations will be followed by a 30-minute question-and-answer session.

Organizers (sun dots - 2007-08 Project NExT Fellows):

Diane Davis, Metropolitan State College of Denver
Aaron Luttmann, Bethany Lutheran College
Rebecca Wills, Roanoke College

Monday, January 7 (cont'd)

2:30 p.m.–4:00 p.m.: *Making the Math Major work for the Under-prepared Student*
(This session is open to everyone attending the meetings.)

Panel: Bonnie Gold, Monmouth University
John Ramsay, The College of Wooster
Laura A. Taalman, James Madison University

Wouldn't it be great if all students considering a major in mathematics were adequately prepared to succeed in the major? Of course, the reality is that many of our students need additional motivation, guidance, and assistance with the material in order to make it through the major. Our panelists will give brief presentations on some strategies that have proven successful at helping such students to succeed without compromising learning in the major. We plan to conclude this session by soliciting ideas, concerns, and success stories from members of the audience. This session was organized by the 1994–2003 Project NExT Fellows to address issues of concern to faculty who have four to ten years of teaching experience.

Organizers (1994-2003 Project NExT Fellows):
Linda Braddy, East Central University
Pamela Pierce, The College of Wooster

4:25 p.m.–5:25 p.m.: *Joint Prize Session*
Room 6AB, SDCC
(This session is open to everyone attending the meetings.)

5:30 p.m.–6:30 p.m.: *Joint Prize Session Reception*
Room 6E, SDCC
(This session is open to everyone attending the meetings.)

5:30 p.m. - 6:45 p.m. *Motivating Students to form Vibrant Math Clubs*

Panel: James Coykendall, North Dakota State University
Jane Cushman, Buffalo State University
Patti Lock, St. Lawrence University
Michael Pelsmajer, Illinois Institute of Technology

In this session, we will have four panelists present and answer questions regarding methods and activities that encourage students to participate in math clubs and become math majors. The panelists, who preside over thriving math clubs at their respective institutions, will address activities for future teachers, Putnam and other math competition preparation, seminars and guest speakers, field trips to conferences, and other fun math activities. The panelists will all give brief descriptions of their programs, after which there will be time for questions from the audience.

Organizers (sun dots – 2007-08 Project NExT Fellows):
Heather Hannah, East Central University
Rachel Schwell, Trinity College
Aliza Steurer, Dominican University

Tuesday, January 8

8:30 a.m.–9:45 a.m.: *Helping Students Develop Mathematical Habits of Minds without Compromising Key Concepts from the Syllabus*

Panel: Hyman Bass, University of Michigan
Al Cuoco, Educational Development Center
Guershon Harel, University of California San Diego
Annie Selden, New Mexico State University

As teachers, we are entrusted to teach the long list of mathematical concepts specified in the syllabus. In addition to the tension between depth and breadth, we need to incorporate into our lessons opportunities for students to develop mathematical thinking, called "habits of mind" by Cuoco, Goldenberg, and Mark and "ways of thinking" by Harel. A panel of mathematicians and mathematics educators will discuss and explore ways to help students develop mathematical habits of mind while learning key concepts.

Organizers (sun dots – 2007-08 Project NExT Fellows):

Kristin Camenga, Houghton College
Kien Lim, University of Texas at El Paso

10:00 a.m.–11:30 a.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 providing the travel funds 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):

T. Christine Stevens, Saint Louis University
Gavin LaRose, University of Michigan

1:00 p.m. - 2:20 p.m.: *Capstone and One-Semester Research Projects for a Variety of Students*

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

Panel: William E. Fenton, Bellarmine University
Steven W. Morics, University of Redlands
Barbara Reynolds, Cardinal Stritch University

Creating a true mathematical research experience for all students can be a challenge. Students have varying abilities and interests. Mathematics majors, even those not destined for mathematical stardom, can benefit from a real mathematical research experience. This session is designed to help faculty recognize and find appropriate problems that can be tackled in a single semester, match problems to students, and mentor these young researchers throughout the research experience from initial approach to final product, a paper and/or presentation. This session was organized by the 1994–2003 Project NExT Fellows to address issues of concern to faculty who have four to ten years of teaching experience.

Organizers (1994–2003 Project NExT Fellows):

Steven Morics, University of Redlands
Mary Shepherd, Northwest Missouri State University

Tuesday, January 8 (cont'd)

2:30 p.m.–4:25 p.m.: *Presentations by Teaching Award Recipients*

Room 6D, SDCC

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

This session consists of presentations by Gilbert Strang, Annalisa Crannell, Kenneth Gross and James Morrow, recipients of this year's or last year's Haimo Award for Distinguished College or University Teaching. Strang and Crannell have been presenters at Project NExT workshops.

8:30 p.m.–10:30 p.m.: *Project NExT Reception*

Marina Ballroom G, Level 3, San Diego Marriott Hotel

(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 refreshments and a cash bar.

Wednesday, January 9

8:00 a.m.–9:15 a.m.: *Maintaining your Sanity as a Faculty Member: Time Management, Finding Balance, Deciding Priorities*

Panel: Murli Gupta, George Washington University
Jeannette L. Kline, Washington and Jefferson College
Bruce Lundberg, Colorado State University – Pueblo
Eric Rowell, Texas A&M University

Are you still trying to figure out how to follow Joe Gallian's advice to say "yes" to everything and still stay sane? Then this session is for you. Everyone needs a little help managing their time especially when they first start out. We hope you will join us for this session, where the panelists will discuss their strategies and techniques for managing their time.

Organizers (sun dots - 2007-08 Project NExT Fellows):

Rachell Esselstein, California State University, Monterey Bay
Jennifer Franko, University of Scranton
Darren Funk-Neubauer, Colorado State University – Pueblo

Wednesday sessions continued on next page...

Wednesday, January 9 (cont'd)

9:30 a.m. - 11:00 a.m.: *New Technologies for Faculty: Wikis, discussion boards, and Clickers*

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

Panel: Joy L. Becker, University of Wisconsin - Stout
Kris Green, St. John Fisher College
Jean McGivney-Burelle, University of Hartford
Steven W. Morics, University of the Redlands

Technology changes rapidly, leading to an inevitable influx of new innovations in teaching and research. This can feel overwhelming, but many of your colleagues have found exciting ways to improve their pedagogy with cutting-edge technology. Come learn how you too can enhance your teaching with these easy-to-learn technologies. Among other topics the panelists will discuss how to use wikis and clickers to increase student communication both in and out of class. Panelists will give short presentations describing the way they use technology, and there will be an open discussion at the end. This session was organized by the 1994–2003 Project NExT Fellows to address issues of concern to faculty who have four to ten years of teaching experience.

Organizers (1994–2003 Project NExT Fellows):

Mason Porter, University of Oxford
Holly Zullo, Carroll College, MT

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 ExxonMobil Foundation and additional funding from the Dolciani-Halloran Foundation, the Educational Advancement Foundation, the American Mathematical Society, the American Institute of Mathematics, the American Statistical Association, the National Council of Teachers of Mathematics, Texas Instruments, the Association for Symbolic Logic, the Association of Mathematics Teacher Educators, Maplesoft, the W. H. Freeman Publishing Company, John Wiley & Sons, the Louisiana-Mississippi Section of the MAA, the Maryland-DC-Virginia Section of the MAA, the Metro New York Section of the MAA, the Oklahoma-Arkansas Section of the MAA and the Greater MAA Fund. More information about Project NExT can be found at <http://archives.math.utk.edu/projnext/>.

We thank sun dots Andrea Frazier, North Central College, and L. Pedro Poitevin, Salem State College, for coordinating the planning of the sun dot (2007-08 Fellows) sessions, and sun dots Erika Asano, University of South Florida, and Muhammad Usman, University of Dayton, for organizing the staffing of the Project NExT booth. Thanks to cardinal dot (2001-02) David Dempsey, Jacksonville State University, and brown dot (1999-2000) Daylene Zielinski, Bellarmine University, for coordinating the planning of the sessions organized by the 1994-2003 Fellows.