

**The Project NExT Colloquium
at The Joint Mathematics Meetings
in Atlanta, Georgia
Tuesday, January 4 – Saturday, January 8, 2005**

Tuesday, January 4, 6:00 p.m. – 9:00 p.m.: Dinner with your Project NExT friends,
Rio/McKenzie/Yukon Rooms, Marriott Marquis

Wednesday, January 5, noon – Saturday, January 8, noon: Project NExT Booth 214, part of
the MAA exhibit area in Grand Hall, Hyatt Regency

Wednesday, January 5 – Saturday, January 8: Project NExT Session Room, Marquis
Ballroom, Salon I, Marriott Marquis

Project NExT Program Schedule

**UNLESS OTHERWISE NOTED, ALL EVENTS ARE IN THE MARQUIS BALLROOM,
SALON I, MARRIOTT MARQUIS.**

Wednesday, January 5

10:00 a.m. – noon: *Mathematics Education Swap Session*

In this session participants will discuss issues related to the mathematics education of future teachers. Participants will be 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. – 3:45 p.m.: *Developing Undergraduate Research Projects That Are Not in Discrete Mathematics*

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

Panel: Carl C. Cowen, Indiana University-Purdue University Indianapolis

David W. Farmer, American Institute of Mathematics

Mario U. Martelli, Claremont McKenna College

Bruce Reznick, University of Illinois at Urbana-Champaign

Patrick J. Van Fleet, University of St. Thomas, MN

Are you looking for research ideas to give to your undergraduate students? This session includes panelists from a variety of fields who will offer advice on how to develop research topics at a level appropriate for the undergraduate. They will discuss how to identify suitable topics and how to keep your students on track, as well as how to give the students sufficient background to tackle an interesting problem. This session was organized by the 1994–2000 Project NExT Fellows to address issues of concern to faculty who have four to ten years of teaching experience.

Organizer (red, green, blue, peach, silver, brown, gold dots):

Edwin P. Herman, University of Wisconsin at Stevens Point

Wednesday, January 7 (cont'd)

3:50 p.m. – 5:10 p.m.: *Dealing with the two-body problem*

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

Salon B, Imperial Ballroom, Marriott Marquis

Panel: John Bukowski, Juniata College
Kristen Lampe, Carroll College, WI
Peter Lampe, University of Wisconsin, Whitewater
Catherine Roberts, The College of the Holy Cross
Cathy Stenson, Juniata College

Finding a job for one mathematician is hard enough, but what if you need jobs for two? Panelists who have searched for a personal solution to a two-body problem will discuss their attempts at a solution, the compromises and logistics involved, and their degree of satisfaction with each "solution" they tried.

Organizers (co-sponsored with Young Mathematicians' Network):

Karolyne Fogel, California Lutheran University
Kimberly A. Roth, Wheeling Jesuit University

4:00 p.m. – 5:30 p.m.: *Keeping current in one's research, keeping research alive, especially while at a small school*

Panel: Chris Goff, University of the Pacific
Alec Matheson, Lamar University
Shing So, Central Missouri State University

Faculty members have more unstructured time than do professionals in other fields. Except for showing up for class, professors can decide when and where they choose to carry out the rest of their academic responsibilities. Indeed, this freedom of action is why many of us chose university careers in the first place. As new faculty members we have now found that, "there is nothing so scary as complete freedom!" Having such freedom can be a particular problem when it comes to doing research. Since research is not public in the same way as is teaching, time to do it is not automatically set aside for you. You must make time for it if you want to keep it alive. Our panelists, all successful researchers in their respective fields, will address topics such as starting a research program, making collaborative contacts, and attending the right conferences.

Organizers (orange dots – 2004-05 Project NExT Fellows):

Kathi Crow, Gettysburg College
Jennifer Daniel, Lamar University
Vesta Coufal, Fort Lewis 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)*

Magnolia Room, Atlanta Marriott Marquis

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.

Thursday, January 6

8:30 a.m. - 10:00 a.m.: *What Faculty Can Do to Promote Diversity in Mathematics*

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

Salon A, Imperial Ballroom, Marriott Marquis

Panel: Nathaniel Dean, Texas Southern University
Stephanie Fitchett, Florida Atlantic University
Deanna B. Haunsperger, Carleton College
Robert E. Megginson, Mathematical Sciences Research Institute

This panel focuses on concrete steps that faculty can take, alone or in small groups, to promote diversity in mathematics. Topics include running summer programs for women or minorities; promoting the success of underrepresented groups in classes; organizing a Sonja Kovalevsky Day for middle or high school girls; successful programs that attract minorities to major in mathematics; resources that are available to assist in promoting diversity in mathematics; promoting diversity in such a way that it will further one's career and increase one's chance for tenure.

Organizers (Project NExT team): T. Christine Stevens, Saint Louis University
Joseph A. Gallian, University of Minnesota Duluth
Aparna W. Higgins, University of Dayton

10:30 a.m. – noon: *Recruiting Students for Mathematics Departments*

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

Panel: Genevieve M. Knight, Coppin State University
Jim Lewis, University of Nebraska
Matthew P. Richey, St. Olaf College

The job opportunities for college graduates with degrees in mathematics are just about unlimited, yet the percentage of students who seek degrees in mathematics is quite small. Somehow we must do a better job recruiting students into mathematics. The members of this panel are from departments that have been able to consistently recruit large numbers of students into their mathematics programs. They will describe what they and other members of their faculty do to help recruit students into mathematics. This session was organized by the 1994–2000 Project NExT Fellows to address issues of concern to faculty who have four to ten years of teaching experience.

Organizers (red, green, blue, peach, silver, brown, gold dots):
Brian Birgen, Wartburg College
Mary D. Shepherd, Northwest Missouri State University

Thursday, January 6 (cont'd)

1:00 p.m. – 2:30 p.m.: *Mentoring Undergraduates*

Panel: Marlow Anderson, Colorado College
Edward Burger, Williams College
Gary Gordon, Lafayette College
Kendra Killpatrick, Pepperdine University
David Lutzer, College of William and Mary
Elizabeth McMahon, Lafayette College
Keith Mellinger, University of Mary Washington
Kathy Weld, Manhattan College

Part 1 (1:00 p.m. - 1:30 p.m.): Undergraduate research projects can be valuable components in the educational experience of mathematics majors. Furthermore, they provide an opportunity for research and teaching to commingle. This session will explore some of the questions surrounding undergraduate research including finding appropriate problems, getting students involved, and providing the right amount of guidance.

Part 2 (1:30 p.m. - 2:30 p.m.): Many mathematics departments, especially at small schools, struggle to develop and maintain a community of undergraduate mathematics students. Panelists will address topics such as encouraging students to major and minor in mathematics and developing and implementing activities that encourage a departmental community.

Organizers (orange dots – 2004-05 Project NExT Fellows):

Vesta Coufal, Fort Lewis College
Alissa Crans, Loyola Marymount University
Stephen Devlin, University of San Francisco
Rehana Patel, St. John's University

2:00 p.m. - 4:00 p.m.: *Project NExT and Young Mathematicians Network Poster Session*

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

Salon 3, Marquis Ballroom, Marriott Marquis

The session will include exhibits from new or recent Ph.D.s in the mathematical sciences or from those still pursuing graduate study.

Organizers (co-sponsored with Young Mathematicians Network):

Kevin E. Charlwood, Washburn University
Kenneth A. Ross, University of Oregon

Thursday, January 6 (cont'd)

3:00 p.m. – 4:30 p.m.: *How does a mathematician work on a “teaching project” and publish it?*

Panel: Bonnie Gold, Monmouth University and editor of the MAA
Online Innovative Teaching Exchange

Elyn Rykken, Muhlenberg College

Kirk Weller, University of North Texas

Brian Winkel, United States Military Academy and editor of PRIMUS

As new faculty members, we are expected to engage in both teaching and scholarship. Publishing articles related to teaching provides an opportunity to combine these two aspects of our careers (potentially leading to that elusive balance of responsibilities). But how do we get started? Our panel, composed of editors and successful authors, will discuss topics such as where to publish such work, the range of projects fitting the description "teaching-related", what makes a project publishable and other useful tips/advice.

Organizer (orange dots – 2004-05 Project NExT Fellows):

Susan Marshall, Monmouth University

4:25 p.m. – 6:30 p.m.: *Joint Prize Session and Reception*

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

Session in Centennial Ballrooms I-III, Hyatt Regency

Reception in Regency Ballroom VII, Hyatt Regency

One of this year's recipients of the MAA's Haimo Award for Distinguished College or University Teaching is Project NExT co-director Aparna Higgins.

Friday, January 7

8:30 a.m. – 10:00 a.m.: *Appropriate Uses of Technology in the Collegiate Mathematics Classroom*

Panel: Douglas Meade, University of South Carolina

David Smith, Duke University

Jerry Uhl, University of Illinois at Urbana-Champaign

How can we, as instructors of mathematics, use technology to enhance our courses? This will be the focus of our panel discussion. Specific topics to be discussed will include methods of effective integration of technology in collegiate mathematics instruction, approaches to assessing the use of technology in the classroom, effects of learning in a technology-rich environment, and appropriate versus inappropriate uses of technology.

Organizers (orange dots – 2004-05 Project NExT Fellows):

Vicky Williams, Appalachian State University

Paul Yu, Grand Valley State University

Friday, January 7 (cont'd)

10:30 a.m. – noon: *Supervising Mathematics Student Teachers*

In this session we will discuss issues involved in supervising student teachers. It is hoped that there will be Fellows in attendance that have experience supervising student teachers and those that are just beginning to supervise student teachers. If you are in one of these categories, please stop by!

Organizer (Project NExT team):

Judith Covington, Louisiana State University Shreveport

12:30 p.m. – 2:30 p.m.: *Grant-writing/ Getting Your Research Off to a Good Start*

Dunwoody Room, Hyatt Regency

Presenters: Lloyd Douglas, National Science Foundation

Joseph A. Gallian, University of Minnesota, Duluth

This is a shortened version of the Project NExT course offered to Fellows at the 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. Project NExT Fellows will also be able to discuss other issues that are of particular concern to them. The presentation on getting your research off to a good start will include advice on how to find research problems, write well, and give good talks. There will also be discussion on where to submit your work, and how to get your work known.

Organizers (Project NExT team): Aparna Higgins, University of Dayton

T. Christine Stevens, Saint Louis University

1:00 p.m. – 2:30 p.m.: *Planning a Sabbatical*

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

Panel: William A. Marion, Valparaiso University

Neil Portnoy, Stony Brook University

Barbara Reynolds, Cardinal Stritch University

Michelle D. Wagner, National Security Agency

Do you want to spend your sabbatical doing research, writing a textbook, working for a government agency, or something entirely different? Our panelists will discuss their varied experiences and answer questions about every step of the process, from generating ideas to writing a proposal to working out the logistics, and funding your sabbatical. This session was organized by the 1994–2000 Project NExT Fellows to address issues of concern to faculty who have four to ten years of teaching experience.

Organizers (red, green, blue, peach, silver, brown, gold dots):

Jeffrey T. Barton, Birmingham-Southern College

Bernadette Mullins, Birmingham-Southern College

Barry S. Spieler, Birmingham-Southern College

Friday, January 7 (cont'd):

2:30 p.m. – 4:00 p.m.: *Presentations by Teaching Award Recipients*

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

Salon B, Imperial Ballroom, Marriott Marquis

This session consists of presentations by the recipients of this year's Haimo Award for Distinguished College or University Teaching. They are Gerald Alexanderson, Deborah Hughes-Hallett, and Project NExT co-director Aparna Higgins.

4:00 p.m. – 5:30 p.m.: *Interdisciplinary Courses*

Panel: Ron Buckmire, Occidental College

Philip Luft, Salisbury University

Karen Marrongelle, Portland State University

Tim Pennings, Hope College

Many different disciplines now recognize mathematics as a necessary and insightful tool in the continued development and understanding of the theories in their respective fields of study. The desire to expose students to this interplay of mathematics with other disciplines has led to the development of numerous types of interdisciplinary courses. Panelists will address topics such as the preparation and organization of an interdisciplinary course, the benefits and challenges of teaching interdisciplinary courses, and methods by which the success of the course can be measured.

Organizers (orange dots – 2004-05 Project NExT Fellows):

Erika Camacho, Loyola Marymount University

Alissa Crans, Loyola Marymount University

Trisha Moller, De Sales University

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

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

Trinidad/Madrid Rooms, Atlanta Marriott Marquis

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

Saturday, January 8

8:30 a.m. – 10:00 a.m.: *Dealing with Departmental Politics*

Panel: Ellen Kirkman, Wake Forest University

Dennis Luciano, Western New England College

Michael Moody, Olin College

Carol Schumacher, Kenyon College

This panel will discuss those aspects of our job outside of what the research and teaching sessions have covered. In particular, the panelists will discuss how to negotiate potentially divisive departmental issues, dealing with administrators, and committee work. Each panelist is experienced in dealing with these issues at various levels, and will give a short presentation before the panel is opened up to questions from the audience.

Organizer (orange dots – 2004-05 Project NExT Fellows):

Sarah Raynor, Wake Forest University

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 American Mathematical Society, the Educational Advancement Foundation, the American Statistical Association, the National Council of Teachers of Mathematics, Texas Instruments, the Association for Symbolic Logic, the Association of Mathematics Teacher Educators, and the Greater MAA Fund. More information about Project NExT can be found at <http://archives.math.utk.edu/projnext/>.

We thank orange dots Jill Shahverdian, Quinnipiac University, and Matthew Winsor, University of Texas at El Paso, for coordinating the planning of the orange dot (2004-05 Fellows) sessions, and Rachelle DeCoste, United States Military Academy, Michael Dobranski, Morehead State University, Maureen Doyle, Morehead State University for organizing the staffing of the Project NExT booth. Thanks to Ioana Mihaila, California State Polytechnic University, Pomona, and Jerzy Wojdylo, Southeast Missouri State University, for coordinating the planning of the sessions organized by the 1994-2000 Fellows.