# PROJECT NExT

# **NEW EXPERIENCES IN TEACHING**

# 2013-2014 FELLOWS

Workshop held in Hartford, CT July 29 - 31, 2013

A program of

# THE MATHEMATICAL ASSOCIATION OF AMERICA

Major funding is provided by

### THE MARY P. DOLCIANI HALLORAN FOUNDATION

and additional support by

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 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 The ExxonMobil Foundation was a founding sponsor (from 1994 to 2011).

We gratefully acknowledge their support.

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, Connecticut July 29 - 31, 2013

The Project NExT registration area will be in the third floor foyer of the Hilton Hartford hotel.

All events are in the Hilton Hartford hotel, unless otherwise noted.

#### MONDAY, JULY 29

11	am -	1:15	pm	Arrival	and	registration		third	floor	foyer
----	------	------	----	---------	-----	--------------	--	-------	-------	-------

1:30 - 1:45 pm	Welcome and opening remarks – Grand Ballroom East
	Robert L. Devaney, Boston University and President of the MAA
	Aparna Higgins, University of Dayton and Director of Project NExT

- 2:00 2:45 pm Small group discussions An opportunity to share your thoughts about the coming year with other Fellows. Group A: Mark Twain Group B: Nathan Hale -- North Group C: Nathan Hale -- South Group D: P.T. Barnum Small group discussions An opportunity to share your thoughts about the coming year with other Group E: Saratoga A (6<sup>th</sup> floor) Group F: Saratoga B (6<sup>th</sup> floor) Group G: Silas Deane Group H: Wadsworth
- 2:55 3:55 pm Teaching, Technology, and the Twists and Turns of the Academic Road Grand Ballroom East Gavin LaRose, University of Michigan
- 3:55 4:25 pm BREAK Grand Ballroom Center

4:30 - 5:15 pmSmall group discussions [Same room assignments by group above, but your<br/>group assignment may have changed – see information.]<br/>An opportunity to talk about teaching techniques with Fellows who work at<br/>institutions that are similar to your institution.<br/>Group A: Mark Twain<br/>Group B: Nathan Hale – North<br/>Group C: Nathan Hale – South<br/>Group D: P.T. BarnumGroup assignments by group above, but your<br/>group assignment may have changed – see information.]<br/>An opportunity to talk about teaching techniques with Fellows who work at<br/>institutions.<br/>Group E: Saratoga A (6th floor)<br/>Group F: Saratoga B (6th floor)<br/>Group G: Silas Deane<br/>Group H: Wadsworth

5:30 - 7:00 pm DINNER – Grand Ballroom West

Monday cont'd on next page

#### MONDAY, JULY 29 (cont'd)

 7:15 - 8:30 pm Panel: Joining the Mathematical Community – Grand Ballroom East Four Project NExT Fellows from previous years will describe how they became involved in various forms of service to the mathematics community.
 Wiebke Diestelkamp, University of Dayton Doug Ensley, Shippensburg University Theron J. Hitchman, University of Northern Iowa Elsa Schaefer, Marymount University

8:30 pm - ? INFORMAL SOCIALIZING

#### **TUESDAY, JULY 30**

7:00 - 8:15 am BREAKFAST – Hartford Commons

# **8:30 - 9:45 am** Selected topics in teaching undergraduate mathematics I [Five simultaneous sessions – see information for assignments]

- A. Effectively Using Applied Writing Projects in Undergraduate Mathematics Courses – Gavin LaRose, University of Michigan, Ethan Allen
- B. *Getting your students to read their textbook* Tommy Ratliff, Wheaton College (MA), **Nathan Hale North**
- C. *Teaching Abstract Algebra* Steve Schlicker, Grand Valley State University, **Silas Deane**
- D. *Teaching Real Analysis an active approach –* Carol Schumacher, Kenyon College, **Nathan Hale – South**
- E. *Helping students learn to write proofs* T. Christine Stevens, Saint Louis University, **Mark Twain**
- 9:55 10:25 am BREAK Grand Ballroom Center

10:25 - 11:40 am Panel: Deciding how to teach, Grand Ballroom East Each panelist will discuss a particular way of teaching or assessing, explaining the technique, its benefits and its limitations. Matt DeLong, Taylor University Jacqueline Jensen-Vallin, Slippery Rock University Holly Zullo, Westminster College

#### 11:45 am - 1:10 pm LUNCH - Hartford Commons

**1:15 - 2:30 pm** Repeat of morning breakout sessions [Five simultaneous sessions – see information, since your assignment will be different from the morning.]

#### Tuesday cont'd on next page

Tuesday, cont'd	
2:40 - 3:40 pm	The Do's and Don't's of Effective Mathematics Teachers – Grand Ballroom East Margaret Robinson, Mount Holyoke College
3:40 - 4:10 pm	BREAK – Grand Ballroom Center
4:10 - 5:25 pm	<ul> <li>Panel: The faculty member as teacher and scholar –</li> <li>Grand Ballroom East</li> <li>Panelists representing a variety of institutions will discuss what expectations early career faculty should fulfill for tenure at those institutions.</li> <li>Patrick Bahls, University of North Carolina at Asheville Bill Barker, Bowdoin College <ul> <li>Angie Hodge, University of Nebraska - Omaha</li> <li>Jenny McNulty, University of Montana</li> </ul> </li> </ul>
5:30 - 7:00 pm	DINNER – Hartford Commons
8:00 - 10:00 pm	Social Event for 2012-2013 and 2013-2014 Project NExT Fellows and Presenters – Grand Ballroom Center
10:00 pm - ?	INFORMAL SOCIALIZING

#### WEDNESDAY, JULY 31

- **7:00 8:15 am** BREAKFAST Hartford Commons
- 8:30 9:35 am Informal discussions on topics proposed by the 2013-2014 Fellows Mark Twain, Nathan Hale – North, Nathan Hale – South, Silas Deane, Connecticut Salon C
- 9:35 10:05 am BREAK Grand Ballroom Center

Wednesday cont'd next page

#### Wednesday cont'd

10:10 - 11:25 am

Selected topics in teaching undergraduate mathematics II [F	ive
simultaneous sessions – see information for assignments]	

- A. *Visualization Techniques for Teaching Calculus* Julie Barnes, Western Carolina University, **Nathan Hale North**
- B. *Advising Undergraduate Mathematics Majors* Wiebke Diestelkamp, University of Dayton, **Nathan Hale South**
- C. Bio-Math Connections Across the Curriculum Laurie Heyer, Davidson College, Silas Deane
- D. Closer to Fair: Social Justice in Mathematics Mathematics for Social Justice – David Kung, St. Mary's College of Maryland, Connecticut Salon C
- E. How to beat the lecture/textbook trap!: An active classroom via student reading, writing, and warmup preparation in advance David Pengelley, New Mexico State University, **Mark Twain**

11:30 am - 12:15 pm Small Group Discussions with other Project NExT Fellows (This session is organized by approximate geographical proximity. Please go to the room that lists the MAA Section in which you will be employed in 2013-14. See information sheets for your MAA Section.)

#### Group A – Connecticut Salon A

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

#### Group B – Connecticut Salon B

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

#### **Group C – Connecticut Salon C**

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

## Group D – Nathan Hale – North

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

**Group E – Nathan Hale – South** Sections: Indiana, Wisconsin (IN, WI)

#### Group F – Saratoga A (6<sup>th</sup> floor)

Sections: Allegheny Mountain, Kentucky, Michigan, Ohio (KY, MI, OH, PA (zips 15000-16899), WV) **Group G – Silas Deane** Sections: Florida, Southeastern (AL, FL, GA, NC, PR, SC, TN, VI)

#### Group H – Mark Twain

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

# Group I - Saratoga B (6<sup>th</sup> floor)

Sections: Metro New York, Seaway (NY, ON, QC)

#### **Group J – Hartford Commons**

Sections: Northeastern (CT, MA, ME, NB, NF, NH, NS, PE, RI, VT)

#### 12:15 - 1:30 pm LUNCH – Grand Ballroom West

Wednesday cont'd next page

Wednesday, cont'd

1:35 - 2:50 pm	Repeat of morning breakout sessions. [Five simultaneous sessions. See information, since your assignment will be different from the morning.]
2:55 - 3:25 pm	Planning session for January Meetings in Baltimore, MD – Grand Ballroom East and Center
3:25 - 3:55 pm	BREAK – Grand Ballroom West
3:55 - 5:25 pm	Closing Session – <b>Grand Ballroom East and Center</b> Recognition of 2012-13 Fellows Presentation: <i>Finding Your Niche in the Profession</i> Joseph Gallian, University of Minnesota Duluth
6:00 - 8:00 pm	Mathfest Grand Opening Reception (open to all attendees of Mathfest), Level 6, Connecticut Convention Center
8:00 pm - ?	INFORMAL SOCIALIZING

#### THURSDAY AND FRIDAY, AUGUST 1 AND 2

**Project NExT Courses During Mathfest**: Four-hour courses meeting in the **Hartford Marriott Downtown** on Thursday and Friday, August 1 and 2. [See information for assignments.]

- A. Getting your research off to a good start (Part 1) and Applying for Grants from the National Science Foundation (Part 2) – Joe Gallian, University of Minnesota Duluth, 1 – 3 pm, Capital Room 1
- B. Undergraduate Research—How to Make It Work Aparna Higgins, University of Dayton, 1 3 pm, Capital Room 2
- C. *What? You want me to teach the introductory statistics course?* Robin Lock, St. Lawrence University, 1 3 pm, Capital Room 3
- D. *Teaching Liberal Arts Mathematics Courses* Dale Buske, St. Cloud State University, 3:15 5:15 pm, Capital Room 1
- E. *Teaching Math Content Courses for Future K-8 Teachers* Judith Covington, Louisiana State University Shreveport, 3:15 5:15 pm, **Capital Room 2**
- F. Using Technology for Effective Teaching Doug Ensley, Shippensburg University, 3:15 5:15 pm, Capital Room 3

\_\_\_\_\_

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.