

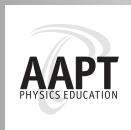


workshop for
**new physics and
astronomy faculty**

JUNE 12-15, 2017

AMERICAN CENTER FOR PHYSICS
COLLEGE PARK, MD

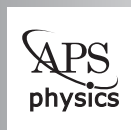
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Dylan Yost
Colorado State University
BREAKOUT III

George Younes
The George Washington
University
BREAKOUT I

Jiadong Zang
University of New Hampshire
BREAKOUT II

MONDAY, JUNE 12

11:00 A.M.–5:00 P.M.	WORKSHOP REGISTRATION Hilton Garden Inn, 7810 Walker Dr., Greenbelt, MD	AZALEA BALLROOM FOYER
1:30–3:00 P.M.	WORKSHOP Guidance on Writing Competitive NSF Proposals Kevin Lee, Division of Undergraduate Education, National Science Foundation	AZALEA BALLROOM
3:00–4:30 P.M.	WORKSHOP Grant Opportunities at the National Science Foundation Corby Hovis, Division of Undergraduate Education, chovis@nsf.gov Kevin Lee, Division of Undergraduate Education, klee@nsf.gov Kathleen McCloud, Division of Physics, kmcloud@nsf.gov Joe Pesce, Division of Astronomical Sciences, jpesce@nsf.gov Guebre Tessema, Division of Materials Research, gtessema@nsf.gov	AZALEA BALLROOM
4:30–4:45 P.M.	BREAK	AZALEA BALLROOM FOYER
4:45–5:15 P.M.	OPENING REMARKS Welcome and Introductions Robert Hilborn, Associate Executive Officer, AAPT, Chair, Physics and Astronomy New Faculty Workshop Beth Cunningham, Executive Officer, AAPT Cathy O’Riordan, Chief Operating Officer, AIP Kate Kirby, Chief Executive Officer, APS Kevin Marvel, Executive Officer, AAS	AZALEA BALLROOM
5:15–6:30 P.M.	LARGE GROUP SESSION Highlighting PER – The Journey from Traditional Instruction to Active Learning Laurie McNeil, University of North Carolina-Chapel Hill	AZALEA BALLROOM
6:30–7:30 P.M.	DINNER	AZALEA & DOGWOOD (ROOSEVELT) BALLROOM
7:30–8:30 P.M.	LARGE GROUP SESSION Faculty Change and Research on Adoption Cassandra Horii, California Institute of Technology	DOGWOOD BALLROOM

TUESDAY, JUNE 13

7:45 A.M.	SHUTTLE BUS LEAVES (ON TIME) FOR AMERICAN CENTER FOR PHYSICS	
8:20–8:30 A.M.	INTRODUCTIONS AND FOLC ANNOUNCEMENT Robert Hilborn, AAPT; Andy Rundquist, Hamline University; Caitlin Williams, Hastings College; and Alexander Kemper, North Carolina State University	CONFERENCE ROOM A
8:30–9:45 A.M.	LARGE GROUP SESSION Learner Centered Teaching in Physics and Astronomy Ed Prather, University of Arizona	CONFERENCE ROOM A

TUESDAY, JUNE 13 (CONT.)

9:45–10:45 A.M.	<p>SMALL GROUP SESSIONS (PARTICIPANTS CHOOSE THREE OF THE FOUR SESSIONS)</p> <p>Interactive Lecture Demonstrations CONFERENCE ROOM A David Sokoloff, Univ. of Oregon and Ronald Thornton, Tufts Univ.</p> <p>Tutorials in Physics CONFERENCE ROOM B Lillian C. McDermott and Peter Shaffer, University of Washington</p> <p>Just-in-Time Teaching CONFERENCE ROOM C Andy Gavrin, Indiana University-Purdue University-Indianapolis</p> <p>Rethinking Labs AAPT 5TH FL CONF. ROOM Natasha Holmes, Cornell University</p>
10:45–11:00 A.M.	BREAK ACP ROTUNDA
11:00 A.M.–NOON	<p>SMALL GROUP SESSIONS (PARTICIPANTS CHOOSE THREE OF THE FOUR SESSIONS)</p> <p>Repeat from 9:45–10:45 a.m. (RETHINKING LABS WILL BE IN APS 5TH FL CONF. ROOM)</p>
NOON–1:00 P.M.	GROUP PHOTO AND LUNCH ACP CAFETERIA
1:00–2:00 P.M.	<p>SMALL GROUP SESSIONS (PARTICIPANTS CHOOSE THREE OF THE FOUR SESSIONS)</p> <p>Repeat from 9:45–10:45 a.m.</p>
2:00–2:45 P.M.	<p>SMALL GROUP SESSIONS (PARTICIPANTS CHOOSE THREE OF THE FOUR SESSIONS)</p> <p>PhET Interactive Simulations CONFERENCE ROOM A Michael Dubson, University of Colorado-Boulder</p> <p>Physlets/Open Source Software CONFERENCE ROOM B Mario Belloni, Davidson College</p> <p>Lecture Tutorials CONFERENCE ROOM C Ed Prather and Gina Brissenden, University of Arizona</p> <p>PhysPort/ComPADRE AAPT 5TH FL CONF. ROOM Eleanor Sayre, Kansas State University</p>
2:45–3:00 P.M.	BREAK ACP ROTUNDA
3:00–3:45 P.M.	<p>SMALL GROUP SESSIONS (PARTICIPANTS CHOOSE THREE OF THE FOUR SESSIONS)</p> <p>Repeat from 2:00–2:45 p.m.</p>
3:45–4:30 P.M.	<p>SMALL GROUP SESSIONS (PARTICIPANTS CHOOSE THREE OF THE FOUR SESSIONS)</p> <p>Repeat from 2:00–2:45 p.m.</p>
4:30–5:45 P.M.	<p>LARGE GROUP SESSION CONFERENCE ROOM A</p> <p>Development and Planning for Think-Pair-Share (Peer Instruction) Ed Prather, University of Arizona</p>
6:00 P.M.	SHUTTLE BUS LEAVES FOR HILTON GARDEN INN
6:30–7:30 P.M.	DINNER - HILTON GARDEN INN AZALEA & DOGWOOD (ROOSEVELT) BALLROOM
7:30–8:30 P.M.	<p>GROUP MEETING AZALEA BALLROOM</p> <p>Faculty Online Learning Community group meeting Andy Rundquist, Hamline University; Caitlin Williams, Hastings College; and Alexander Kemper, North Carolina State University</p>

WEDNESDAY, JUNE 14

6:30–7:30 A.M.	BREAKFAST— HILTON GARDEN INN
7:45 A.M.	SHUTTLE BUS LEAVES (ON TIME) FOR AMERICAN CENTER FOR PHYSICS
8:20–9:30 A.M.	SMALL GROUP SESSIONS (PARTICIPANTS GROUPS I, II AND III) CONFERENCE ROOMS A, B, C Group Implementations of TPS (Peer Instruction) Questions
9:30–10:15 A.M.	SMALL GROUP SESSIONS (PARTICIPANTS GO TO APPROPRIATE SESSIONS) Primarily Undergrad Institutions CONFERENCE ROOM A PhD Granting Institutions CONFERENCE ROOM B
10:15–10:30 A.M.	BREAK ACP ROTUNDA
10:30–11:15 A.M.	SMALL GROUP SESSIONS (PARTICIPANTS CHOOSE ONE OF THE SESSIONS) Tenure Matters (PhD Granting) CONFERENCE ROOM A Steve Turley, Brigham Young University Tenure Matters (non-PhD Granting – Group 1) CONFERENCE ROOM B Bob Hilborn, AAPT Tenure Matters (non-PhD Granting – Group 2) CONFERENCE ROOM C Andy Rundquist, Hamline University
11:15–12:15 P.M.	LARGE GROUP SESSION CONFERENCE ROOM A Departmental Ecosystems: Recruitment, Retention, Mentoring, Diversity, Leadership, and More Ted Hodapp, American Physical Society
12:15–1:15 P.M.	LUNCH ACP CAFETERIA
1:15–2:15 P.M.	LARGE GROUP SESSION CONFERENCE ROOM A Interactive Engagement in Upper-Level Courses and Problem Solving Corinne Manogue, Oregon State University
2:15–3:00 P.M.	SMALL GROUP SESSIONS (PARTICIPANTS CHOOSE TWO OF THE THREE SESSIONS) Problem Solving in Upper-Level Courses CONFERENCE ROOM A Corinne Manogue, Oregon State University Problem Solving in Intro Physics CONFERENCE ROOM B Andy Rundquist, Hamline University Problem Solving Using TPS (Peer Instruction) CONFERENCE ROOM C Ed Prather, University of Arizona
3:00–3:15 P.M.	BREAK ACP ROTUNDA
3:15–4:00 P.M.	SMALL GROUP SESSIONS (PARTICIPANTS CHOOSE TWO OF THE THREE SESSIONS) Repeat from 2:15–3:00 p.m.
4:00–5:00 P.M.	LARGE GROUP SESSION CONFERENCE ROOM A Facilitated Discussion – What Have We Learned and What Questions Do We Have?
5:00–6:00 P.M.	SMALL GROUP SESSIONS CONFERENCE ROOMS A, B, C Breakout Topical Group Discussions

WEDNESDAY, JUNE 14

6:15 P.M.	SHUTTLE BUS LEAVES FOR HILTON GARDEN INN	
6:45–7:45 P.M.	DINNER - HILTON GARDEN INN	AZALEA & DOGWOOD (ROOSEVELT) BALLROOM

THURSDAY, JUNE 15

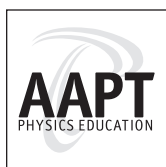
7:00–8:00 A.M.	BREAKFAST – HILTON GARDEN INN Hotel Checkout - before 12:00 noon	
8:30–9:30 A.M.	LARGE GROUP SESSION	AZALEA BALLROOM
	The Importance of Diversity in Astronomy and Physics Nadya Mason, University of Illinois	
9:30–9:45 A.M.	BREAK	AZALEA BALLROOM FOYER
9:45–10:45 A.M.	LARGE GROUP SESSION	AZALEA BALLROOM
	What Will I Do When I Get Back to the Office? Bob Hilborn, AAPT	
10:45 –11:15 A.M.	LARGE GROUP SESSION	AZALEA BALLROOM
	Final Words, Evaluation Procedures, and Adjourn Robert Hilborn, AAPT	



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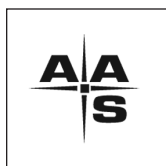
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Founded in 1930, AAPT is the premier professional society established to advance the greater good through physics education. With the support of our members worldwide, AAPT is an action oriented organization designed to develop, improve, and promote best practices for physics education as part of the global need for qualified Science, Technology, Engineering, and Mathematics teachers who will inspire tomorrow's leaders and decision makers.

We serve our members through networking, publications, and programs, but also reach out to the larger community of physics and science teachers—current and future—and we look after issues of significance in science education. Our national office works closely with our dedicated volunteers around the world to promote a better understanding of physics at all levels.

AAPT provides networking opportunities through online discussion lists, social media, the Workshops for Physics and Astronomy New Faculty (with APS and AAS); Physics Department Chairs Conference (with APS), and our two national annual meetings. The association supports physics educators through our publications, the *American Journal of Physics* and *The Physics Teacher*; *Physical Review Special topics – Physics Education Research* (with APS and the APS Forum on Education) and the *eNNOUNCER*; NSF-funded programs including the PER User's Guide, the Physics Teacher Education Coalition, PhysTEC (with APS); Physics Teaching Resource Agents institutes; the digital physics library, ComPADRE (with APS and AIP); Physics Program Reviews, and the student programs and scholarships that we administer, including the Lotze Scholarship for Future Teachers.



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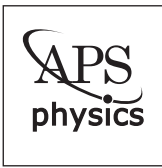
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AMERICAN ASTRONOMICAL SOCIETY

The American Astronomical Society promotes the advancement of astronomy and closely related branches of science. It was founded in 1899. AAS members include professional researchers in the astronomical sciences, and also educators, students, and others interested in the advancement of astronomical research. The Society operates in five major areas: Publications, Meetings, Education, Public Policy and Employment in order to ensure that astronomy remains healthy and vital for the benefit of our profession and society at large. AAS publishes *The Astrophysical Journal* and *The Astronomical Journal*, which are among the most important scholarly journals in the field. The *Bulletin of the American Astronomical Society* reports the latest institutional developments and documents the content of AAS and its divisions' annual meetings. More information about the Society's activities and membership are available on the AAS website, www.aas.org.



AMERICAN PHYSICAL SOCIETY

With 54,000 members worldwide, the American Physical Society works to advance and disseminate the knowledge of physics. Since its formation in 1899, it has been dedicated to providing its members and the international physics community with the latest research results through meetings and the most highly respected international journals in physics. These journals include *Physical Review Letters*, the *Physical Review* (with a journal on Physics Education Research), *Reviews of Modern Physics*, and its newest journals, *Physical Review Applied*, *PRX*, and *Physical Review Fluids*. The APS conducts more than 20 meetings per year, to connect physicists and disseminate physics knowledge and information relevant to the community. In addition, APS vigorously lobbies for funding for physics research and education, provides the physics community with timely information about government affairs, carries out studies of physics-based topics of importance to the country, and promotes the interests of the physics community through extensive public information efforts such as [www. PhysicsCentral.com](http://www.PhysicsCentral.com), a website for the public.

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APS is actively involved in programs to improve undergraduate and graduate education and to improve the preparation of future physics and physical science teachers through its leadership in the Physics Teacher Education Coalition (www.PhysTEC.org). APS partners with AAPT in PhysTEC and on numerous other education programs, including the New Faculty Workshop, and conferences and workshops on education at various levels. For many years APS has worked to increase diversity in the physics community, and in 2012 launched the APS Bridge Program (www.apsbridgeprogram.org), a national effort to increase the number of underrepresented minorities that receive a PhD in Physics. In addition, APS sponsors the national Conferences for Undergraduate Women in Physics (www.aps.org/cuwip) – a set of regional conferences to encourage participation of women in the discipline.



AMERICAN INSTITUTE OF PHYSICS

AIP's mission is to advance, promote and serve the physical sciences for the benefit of humanity.

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AIP Member Societies cover a broad range of fields in the physical sciences and collectively represent more than 120,000 scientists, engineers, educators and students in the global physical sciences community.



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