

In this issue

- [A Message from the Chair](#)
- [New members of the Executive Committee](#)
- [Call for DMP Focus Session Topics for 2015 APS March Meeting](#)
- [March Meeting: Location](#)
- [March Meeting: DMP Sponsored Meetings](#)
- [The American Physical Society-Division of Materials Physics
Ovshinsky Student Travel Awards](#)
- [Award and Prize Winners](#)
- [March Meeting: DMP Sponsored Symposia & Special Events](#)
- [March Meeting: APS Special Symposia & Events](#)
- [March Meeting: Premeeting Workshops](#)
- [March Meeting: Tutorials](#)
- [March Meeting: Editorial vents](#)
- [DMP Executive Committee](#)

A Message from the Chair

This Newsletter outlines the many DMP sessions and activities at the upcoming March Meeting, the recipients of the Adler Award and McGroddy Prize, the new APS Fellows who were nominated through the DMP, the DMP student travel award winners, and the newly elected members of the DMP Executive Committee.

Now is the time to propose new Focus Topics for the 2014 March Meeting by contacting John Mitchell, who will be the DMP Program Chair for the 2015 March Meeting in San Antonio, Texas. The DMP focus topics provide an opportunity to gather related talks in distinct and well-defined focus sessions on topics of intense interest; they also provide the opportunity to mix invited and contributed talks in the same forum. Your colleagues will appreciate and benefit from your suggestions, so please see the detailed instructions below and send John Mitchell (mitchell@anl.gov) your ideas. After the new focus topics are announced later this year, please consider suggesting invited speakers to the organizers, so that the sessions will include the best possible invited program.

This is also a time to nominate distinguished members of our community for the David Adler Lectureship Award in the Field of Materials Physics, and the James C. McGroddy Prize for New Materials. Both of these awards bring high visibility and recognition to the recipients, so please consider who among your colleagues might be deserving and then put together a nomination packet. See <http://www.aps.org/programs/honors/> for details of the nomination processes.

As will be immediately evident from the March Meeting program, materials physics is an exciting and growing field. The DMP membership contributes enormously to every aspect of the field, and the DMP Executive Committee members are very pleased that we can play a role.

We all look forward to seeing you in Denver,
David G. Cahill, Chair
Division of Materials Physics

Call for DMP Focus Session Topics for 2015 APS March Meeting

The Division of Materials Physics organizes a large number of Focus Topics for each APS March Meeting. A Focus Topic generally consists of a series of sessions, each of which is typically seeded with one invited talk, the remainder of the session being composed of contributed talks (see <http://www.aps.org/units/dmp/newsletters/summer2013.cfm> for a list of Focus Topics for the 2013 March Meeting). While many Focus Topics are continued from year to year, some are removed and some new topics are added in fields of current interest.

We are now soliciting new ideas for Focus Topics for the 2015 March Meeting, and we hope you will send suggestions. Your suggestions should provide the following information:

- Title of the Focus Topic
- The nominator's name, affiliation, phone number and e-mail address
- Suggestions for possible organizers
- A brief description of the scope of the topic.

Please send your suggestions by March 15 to John Mitchell (mitchell@anl.gov), who will be the DMP Program Chair for the 2015 meeting. Suggestions received after March 15 will be reviewed by the DMP Executive Committee if time allows.

March Meeting: Location

The 2014 March Meeting of the APS will take place, March 3-7, 2014 in the Colorado Convention Center, Denver, Colorado. All scientific sessions will be in the Baltimore Convention Center but events and activities may be in Colorado Convention Center or the Hilton Baltimore Hotel. Check event details for time and place.

For further information see:

<http://www.aps.org/meetings/march/index.cfm>

For the DMP sponsored sessions see:

<http://meetings.aps.org/Meeting/MAR14/sessionindex2?SponsorID=DMP>

March Meeting: DMP Sponsored Meetings

The Division of Materials Physics will sponsor the following meetings during the 2014 March meeting in Denver, CO. This is your opportunity to interact with the Executive Committee and to become informed of the activities of the Division.

Tuesday, March 4

DCMP/DMP New Fellows & Award Winners Reception

5:30 p.m. - 7:00 p.m.

Sheraton Denver Downtown

Plaza Ballroom E

DMP Business Meeting

7:00-8:00pm

Sheraton Denver Downtown, Plaza Court 4

The American Physical Society-Division of Materials Physics Ovshinsky Student Travel Awards

The Ovshinsky Student Travel Awards have been established to assist the career of student researchers. The Awards are named after Iris and Stanford Ovshinsky who had a very strong interest and commitment to scientific education. The awards have been endowed by the Ovshinsky family, their colleagues at Energy Conversion Devices (ECD) companies and all their numerous friends from many social, intellectual and business relationships.

The Ovshinsky Student Travel Awards will be presented at the DCMP/DMP New Fellows and Award Winners Reception, Tuesday, March 4, 5:30 p.m. in the Plaza Ballroom E, Sheraton Denver Downtown

We are extremely grateful to the Ovshinsky family for this award. Special thanks go to Prof. Brian Schwartz who has made this award possible and for all his efforts on behalf of Materials Physics over the years.

The winners of the 2014 Ovshinsky Student Travel Awards for Materials Physics are:

NAME	INSTITUTION
M. Brahlek	Rutgers University
S. Chi	University of British Columbia
A. Larson	University of New Hampshire
D. Nieto Simavilla	Illinois Institute of Technology
A. O'Hara	The University of Texas at Austin
J. Song	Harvard University and MIT
J. Suh	University of California, Berkeley
I-C. Tung	Northwestern University

Award and Prize Winners

James C. McGroddy Prize for New Materials

[Zhong Lin Wang](#)

Georgia Institute of Technology

"For seminal contributions to the synthesis, fundamental understanding, and applications of ZnO nanostructures in sensing, energy harvesting, and piezotronics."

David Adler Lectureship Award:

[Paul Canfield](#)

Iowa State University

"For his development and elucidation of superconductivity in magnesium diboride and iron pnictide compounds, and his outstanding mentoring and enthusiastic communication of the excitement and importance of Materials Physics."

2013 Fellows nominated by DMP:

Berger, Claire

Georgia Institute of Technology

Citation: For seminal contributions to the development of epitaxial graphene electronics

Carroll, David

Wake Forest University

Citation: For pioneering studies in determining the electronic structure of nanoscale materials and their defects and interfaces through the use of scanning probes leading to applications in electroactive polymer nanocomposites

Fisher, Ian R.

Stanford University

Citation: For pioneering research in the electronic properties and crystal growth of quantum materials

Gruverman, Alexei

University of Nebraska

Citation: For pioneering contribution to the development of piezoresponse force microscopy as a probing and controlling tool of nanoscale phenomena in ferroelectric and piezoelectric heterostructures

Kagan, Cherie R.

University of Pennsylvania

Citation: For seminal contributions to the development of epitaxial graphene electronics

Krivanek, Ondrej L.

Nion Company

Citation: For seminal contributions to advancing the microscopy and spectroscopy of materials through innovative electron optics

Kronik, Leeor

Weizmann Institute of Science

Citation: For path-breaking work relevant to central issues in interfacial and solid state science, which has led to new understandings in materials and interface physics

Li, Qiang

Brookhaven National Laboratory

Citation: For his contributions to both basic and applied aspects of high-temperature superconductivity

Liu, Jie

Duke University

Citation: For contributions to nanoscale chemistry, especially the controlled synthesis and chemical modification of carbon nanotubes with enhanced properties for numerous applications

McCarty, Kevin F.

Sandia National Laboratories

Citation: For pioneering experimental explorations of the dynamics of ceramic and metal surfaces

Neaton, Jeffrey B.

Lawrence Berkeley National Laboratory

Citation: For fundamental contributions to the understanding of phase behavior, electronic structure, and transport properties of condensed matter, particularly multiferroics, nanostructures, and materials for energy conversion and storage

Palstra, Thomas T.M.

University of Groningen

Citation: For pioneering experiments in superconductivity and magnetism giving rise to various discoveries in strongly-correlated oxides, heavy-fermion systems and organics

Pan, Xiaoqing

University of Michigan

Citation: For pioneering contributions and innovative application of electron microscopy to probe and understand the effects of boundary conditions on ferroelectricity, including polarization mapping and domain dynamics, with atomic resolution

Wang, Wei-Hua

Chinese Academy of Science

Citation: For significant contributions to the understanding of the physical properties of metallic glasses, in particular, the development of the microscopic mechanisms of metallic glass formation and their mechanical properties

Zinkle, Steven J.

Oak Ridge National Laboratory

Citation: For significant contributions to the fundamental understanding of radiation effects in metallic and ceramic materials

Zuo, Jian-Min

University of Illinois

Citation: For major contributions to the development of electron nanodiffraction and coherent diffraction for quantitative atomic structural analysis, and to their applications in fundamental understanding of nanoscale structural physics in solids, solid interfaces and surfaces

March Meeting: DMP Sponsored Symposia & Special Events

I. Session D12: Invited Session: Materials Genome: Theory-Led Accelerated Materials Discovery

Sponsoring Units: DMP

Room: 205; Monday, March 3, 2014 2:30PM – 5:30PM

2:30PM

D12.00001: Oxide Materials

Invited Speaker: Mark Asta, Univ of California - Berkeley

3:06PM

D12.00002: Using your own computer to search for novel materials (with a little help from the aflowlib.org consortium online library)

Invited Speaker: Stefano Curtarolo, Duke University

3:42PM

D12.00003: Computational Discovery and Design of Two-Dimensional Materials for Energy Technologies

Invited Speaker: Richard G. Hennig, Cornell University

4:18PM

D12.00004: Random search - a tool for exploring dense matter

Invited Speaker: Chris Pickard, University College London

4:54PM

D12.00005: The "Missing Compounds" affair in functionality-driven material discovery

Invited Speaker: Alex Zunger, University of Colorado

II. Lunch with the Experts (Graduate Students)

Room: Four Seasons Ballroom 2-3; Tuesday, March 4, 2014 12:30 PM. - 2:00 PM

Graduate students may sign up to enjoy a complimentary box-lunch while participating in an informal discussion with an expert on a topic of interest to them.

Division on Materials Physics (DMP) Sponsored Topics:

Multifunctional materials and spintronics

Chris Palmstrøm, University of California, Santa Barbara

Physics of Cancer

Clare Yu, University of California, Irvine

Functional Materials

Ivan Schuller, University of California, San Diego

Superconducting Materials Growth and Design

Athena Safa-Sefat, Oak Ridge National Laboratory

Computational Materials Design

Bruce Harmon, Iowa State and Ames Laboratory

III. Session J55: Invited Session: Buckley / McGroddy / Adler / IUPAP YSP/ Nicholson Prize Session

Sponsoring Unit: DCMP, DMP

Room: Four Seasons Ballroom I; Tuesday, March 4, 2014 2:30PM - 5:30PM

2:30PM

J55.00001: **Oliver E. Buckley Prize:** Graphene and Beyond

Invited Speaker: Philip Kim, Columbia University

3:06PM

J55.00002: **James C. McGroddy Prize:** Piezotronics of ZnO Nanomaterials

Invited Speaker: Zhong Lin Wang, Georgia Institute of Technology

3:42PM

J55.00003: **David Adler Lectureship Award:** A Chance to Grow

Invited Speaker: Paul Canfield, Iowa State University

4:18PM

J55.00004: **IUPAP Young Scientist Prize:** Neutron scattering in magnetism

Invited Speaker: Clarina de la Cruz, Oak Ridge Nat Lab

4:54PM

J55.00005 : Dwight Nicholson Medal Lecture: Science and Society

Invited Speaker: E. Dan Dahlberg, University of Minnesota

IV. Session K61: DMP Business Meeting

Sponsoring Unit: DMP

Room: Sheraton Denver Downtown Plaza Court 4; Tuesday, March 4, 2014 7:00PM – 8:00PM

7:00PM

K61.00001: DMP Business Meeting

V. Session M14: Invited Session: Physics for Everyone

Sponsoring Units: DMP

Room: 301, 303; Wednesday, March 5, 2014 11:15AM – 2:15PM

11:15AM

M14.00001: The Universe: Beginnings, Ending and Our Miserable Future

Invited Speaker: Lawrence Krauss, Arizona State University

11:51AM

M14.00002: Attosecond Physics - Probing and Controlling Matter on Its Natural Time Scale

Invited Speaker: Anthony F. Starace, University of Nebraska

12:27PM

M14.00003: Quantum Matter Meets Living Matter

Invited Speaker: Ronald Walsworth, Harvard University

1:03PM

M14.00004: Journey to the Center of the Earth

Invited Speaker: David Stevenson, Caltech

1:39PM

M14.00005: Higgs and Beyond

Invited Speaker: James Proudfoot, Argonne National Laboratory

VI. Session T40: Invited Session: Collective Excitations in Cuprates

Sponsoring Unit: DCMP, DMP

Room: Mile High Ballroom 2B-3B; Thursday, March 6, 2014 11:15AM - 2:15PM

11:15AM

T40.00001: Pairing, Pair-Breaking, and the Critical Temperature in the Cuprate Superconductors

Invited Speaker: Theodore Reber, Brookhaven National Lab

11:51AM

T40.00002: Lattice, spin, and charge excitations in cuprates

Invited Speaker: Wei-Sheng Lee, Stanford Institute for Materials and Energy Sciences, SLAC National Accelerator Laboratory

12:27PM

T40.00003: Doping evolution of the magnetic excitations in the cuprates and its implications for high temperature superconductivity

Invited Speaker: Mark P.M. Dean, Brookhaven National Laboratory

1:03PM

T40.00004: Fluctuating Charge Density Waves in a Cuprate Superconductor

Invited Speaker: Nuh Gedik, Massachusetts Institute of Technology

1:39PM

T40.00005: Quasiparticle dynamics and competing order in cuprate superconductors

Invited Speaker: Joseph Orenstein, University of California, Berkeley/Lawrence Berkeley Lab

VII. Session W39: Invited Session: Emergent Symmetries in Magnetic and Ferroelectric Systems

Sponsoring Units: DCMP, DMP

Room: Mile High Ballroom 2A-3A; Thursday, March 6, 2014 2:30PM - 5:30PM

2:30PM

W39.00001: Critical Properties of the Kitaev-Heisenberg Model

Invited Speaker: Natalia B. Perkins, University of Wisconsin

3:06PM

W39.00002: Spin dynamics in layered honeycomb iridates: implications for Kitaev physics

Invited Speaker: Sungkyun Choi, University of Oxford

3:42PM

W39.00003: Emergent Criticality and Ricci Flow in a 2D Frustrated Heisenberg Model

Invited Speaker: Peter P. Orth, Karlsruhe Institute of Technology (KIT)

4:18PM

W39.00004 : $Z_2 \times Z_3$ Symmetry of Multiferroic Vortices

Invited Speaker: Sang-Wook Cheong, Rutgers University

4:54PM

W39.00005: Hidden Monopolar Order in Magnetoelectrics

Invited Speaker: Nicola Spaldin, ETH Zurich

March Meeting: APS Special Symposia & Events

Session B36: Invited Session: Visa and Immigration Policies for 21st Century Science

Sponsor: FIP

Chair: *Amy Flatten, Director of International Affairs, American Physical Society*

Room: 703; Monday, March 3, 2014 11:15AM – 2:15PM

11:15AM

B36.00001: George Washington University Visa Project--Streamlining Our Visa and Immigration Systems for Scientists and Engineers

Invited Speaker: Albert H. Teich, George Washington University

11:51AM

B36.00002: National Academy of Sciences: Helping Scientists Navigate & Troubleshoot Visa Issues

Invited Speaker: Kathie Bailey, Director, Board on International Scientific Organizations, National Academy of Sciences

12:27PM

B36.00003: Improvements to the Visa Application System: Serving the S&T Community, Promoting The American Economy and Keeping Us Safe

Invited Speaker: Mathew Gillen, Visa Office, Bureau of Consular Affairs, U.S. Department of State

1:03PM

B36.00004: Panel Discussion and Audience Q&A

Invited Speaker: George Crabtree, Argonne National Laboratory, Univ. of Illinois at Chicago

Session B38: Invited Session: Women and the Manhattan Project

Chair: *Margaret Murnane, University of Colorado Boulder*

Room: 709/711; Monday, March 3, 2014 11:15AM – 2:15PM

11:15AM

B38.00001 : The Girls of Atomic City: The Untold Story of the Women Who Helped Win World War II

Invited Speaker: Denise Kiernan, Author, Touchstone/Simon & Schuster

11:51AM

B38.00002 : Women and the Hanford Site

Invited Speaker: Michele Gerber, Gerber Group Consulting

12:27PM

B38.00003 : After the War: Stories of the women who did scientific and technical work on the Manhattan Project

Invited Speaker: Ruth Howes, Retired

1:03PM

Abstract: B38.00004 : Preserving the Manhattan Project

Invited Speaker: Cynthia Kelly, Atomic Heritage Foundation

1:39PM

B38.00005 : Then and Now: Women Respond to the Manhattan Project -- an illustrated talk

Invited Speaker: Olivia Fermi, M.A.

Session D38: Invited Session: Secrecy and Science

Sponsor: FPS

Chair: *Arian Pregezer*

Room: 709/711; Monday, March 3, 2014 2:30PM - 5:30PM

2:30PM

D38.00001 : Secrecy versus Openness: Historical Perspectives

Invited Speaker: George Dyson

3:06PM

D38.00002 : The Growing Tension Between Openness and Risk in the Life Sciences

Invited Speaker: David A. Relman, Stanford University

3:42PM

D38.00003 : Intellectual Property and Corporate Research: Threats to Scientific Openness

Invited Speaker: Paul McEuen, Cornell University

4:18PM

Abstract: D38.00004 : Espionage and Science

Invited Speaker: Bruce Held, NNSA

4:54PM

D38.00005 : Classified Peer Review: Challenges and New Opportunities

Invited Speaker: William (Brad) Martin, National Security Agency

Session E1: Prizes & Awards Ceremonial Session

Sponsor: APS

Room: 301-303; Monday, March 3, 2014 5:45PM – 6:45PM

Prizes and awards will be bestowed on several individuals for outstanding contributions to physics. Please plan on attending the Awards Program and join us in honoring these individuals. The names of the awards and awardees will be included in the Meeting Program (Preamble). You may get a print version at the Meeting or view it online in February.

Session E2: Building Your Undergraduate Physics Career

Sponsor: APS

Room: Sheraton Denver Downtown Plaza Ballroom E; Monday, March 3, 2014 6:00PM – 8:00PM

In this interactive event for undergraduates, students will learn important lessons about career preparation, including skill building, networking, and developing "soft skills." Our expert panel of working physicists will be on hand to answer questions, offer advice, and share their stories. Light

Session E3: Welcome Reception

Sponsor: APS

Room: Four Seasons Ballroom; Monday, March 3, 2014 6:45PM - 8:15PM

Join colleagues and other meeting attendees to network and mingle. Light refreshments will be provided.

Session K0: Meet the APS Editors Reception

Sponsor: APS

Room: Sheraton Denver Downtown Plaza Court 4; Tuesday, March 4, 2014 7:00PM – 8:00PM

The APS Journal Editors invite you to join them for conversation and light refreshments. The Editors will be available to answer questions, discuss your ideas, and listen to your comments about the journals. All are welcome to attend.

Session K61: DMP Business Meeting

Sponsor: DMP

Room: Grand Concourse; Tuesday, March 4, 2014 4:30PM – 6:00PM

Session F38: Invited Session: Keyhole to the World: Public Access to Satellite Data for Environmental, Security, and Social Ends

Sponsor: FPS

Chair: *Micah Lowenthal, National Academy of Sciences*

Room: 709; Tuesday, March 4, 2014 8:00AM – 11:00AM

8:00AM

Abstract: F38.00001 : 40 years of Landsat images: What we learned about science and politics

Invited Speaker: Jeff Dozier

8:36AM

F38.00002: Bringing the Crowd to Environmental Investigation and Monitoring

Invited Speaker: John Amos

9:12AM

F38.00003: Nuclear Verification from Space? Satellite Imagery in Support of Non-Proliferation and Arms Control

Invited Speaker: Irmgard Niemeyer

9:48AM

F38.00004: Earth Science Serving Society: Using NASA's environmental satellites to improve quality of life and strengthen the economy

Invited Speaker: Lawrence Friedl

10:24 AM

F38.00005: Panel Discussion

Session G36: Invited Session: Condensed Matter Physics in China

Sponsor: FIP

Chair: *Esen Alp, Argonne National Laboratory*

Room: 703; Tuesday, March 4, 2014 11:15AM – 2:15PM

11:15AM

G36.00001: History, Present and Future of IoP and Solving the unsolvable integrable models

Invited Speaker: Yupeng Wang

11:51AM

G36.00002: Surface Studies of Ice

Invited Speaker: Enge Wang

12:27PM

G36.00003: Pressure tuned novel states of new quantum materials

Invited Speaker: Changqing Jin

1:03PM

G36.00004: Introduction of BASIC (Beijing Advanced Sciences and Innovation Centre)

Invited Speaker: Hong Ding

1:39PM

G36.00005: Half-Century of Chinese Condensed Matter Physics--from humble beginnings

Invited Speaker: Lu Yu

Session G38: Invited Session: Graduate Education: Sustaining Thriving Programs by Embracing Challenges and Opportunities in the 21st Century

Sponsoring Units: FEd

Chair: *Theodore Hodapp, American Physical Society*

Room: 709/711; Tuesday, March 4, 2014 11:15AM – 2:15PM

11:15AM

G38.00001: Highlights From the Second Conference on Graduate Education in Physics

Invited Speaker: Renee Diehl

11:51AM

G38.00002: Increasing Diversity in Physics at the PhD Level and Beyond

Invited Speaker: Keivan Stassun

12:27PM

G38.00003: The Landscape of Graduate Admissions: Surveying Physics Programs about Doctoral Admissions Practices

Invited Speaker: Geoff Potvin

1:03PM

G38.00004: The future of the graduate physics curriculum and exam structure

Invited Speaker: Michael Thoennessen

1:39PM

G38.00005: Preparing Graduate Students for Non-Academic Careers

Invited Speaker: Lawrence Woolf

Session J38: Invited Session: Research and Opportunities at the DOE Nanoscaled Science and Research Centers

Sponsoring Units: COM

Chair: *Fernando Camino, Brookhaven National Laboratory*

Room: 709/711; Tuesday, March 4, 2014 2:30PM – 5:30PM

2:30PM

J38.00001: Nanoscale Engineering of Structures and Devices on Surfaces

Invited Speaker: Esmeralda Yitamben

3:06PM

J38.00002: Computing Correlated Electrons: Roadmap and Roadblocks

Invited Speaker: Gonzalo Alvarez

3:42PM

J38.00003: The Role of Nanoscience and Nanotechnology in Addressing the World's Energy Challenges

Invited Speaker: James Dickerson

4:18PM

J38.00004: Nanoscience and nanofabrication at Argonne National Laboratory: The art of making small

Invited Speaker: Leonidas E. Ocola

4:54PM

J38.00005: Plasmonic Smart Windows: A New Invention from Berkeley's Molecular Foundry

Invited Speaker: Guillermo Garcia

Session L38: Invited Session: History of the Communication of Science to the Public

Sponsoring Units: FHP FOEP

Chair: *Brian Schwartz, City University of New York*

Room: 709/711; Wednesday, March 5, 2014 8:00AM – 11:00AM

8:00AM

L38.00001: The Establishment of Science Communication for the Public at the Royal Institution

Invited Speaker: Frank Burnet

8:36AM

L38.00002: Displaying Science: The Exhibits Revolution in Science and Natural History Museums, 1900-1990

Invited Speaker: Karen Rader

9:12AM

L38.00003: The Role of Living History in the Communication of Science to the Public

Invited Speaker: Susan Marie Frontczak

9:48AM

L38.00004: The Historical Role of the New York Times in the Communication of Science to the Public

Invited Speaker: Dennis Overbye

10:24AM

L38.00005: The Future of the New Media in the Communication of Science

Invited Speaker: Joseph Hanson

Session M33: Invited Session: Postdocs and the Application Process

Sponsoring Units: FGSA

Chair: *David Anderson, University of Michigan*

Room: 706; Wednesday, March 5, 2014 11:15AM – 1:03PM

11:15AM

M33.00001: Panel Discussion on Postdocs

Invited Speaker: Ronny Thomale

11:51AM

M33.00002: Participation in Panel Discussion

Invited Speaker: Candace Pfefferkorn

M33.00003: Panel Discussion on Postdocs

Invited Speaker: Paul Sokol

Session S12: Invited Session: Impacts of Physics Research on the Economy

Sponsoring Units: FPS

Chair: *Pushpalatha Bhat, Fermi National Accelerator Laboratory*

Room: 205; Thursday, March 6, 2014 8:00AM – 11:00AM

8:00AM

S12.00001: Physics for Knowledge and Economic Growth

Invited Speaker: Eric Isaacs

8:36AM

S12.00002: The Effects of Physics R\&D on the European Economy

Invited Speaker: David Lee

9:12AM

S12.00003: Lasers and their Economic Impact in the United States

Invited Speaker: Thomas Baer

9:48AM

S12.00004: Applications of Superconductivity and Impact on U.S. Economy

Invited Speaker: Venkat Selvamanickam

10:24AM

S12.00005: Panel Discussion

Session S38: Invited Session: Assessment Issues in Physics Education

Sponsoring Units: FEd

Chair: *Eric Brewster, Florida International University*

Room: 709/711; Thursday, March 6, 2014 8:00AM – 11:00AM

8:00AM

S38.00001: Foundations for Conceptualizing Assessment in Your Course

Invited Speaker: Eugenia Etkina

8:36AM

S38.00002: Research-based assessment instruments: Design, validation and interpretation

Invited Speaker: Wendy Adams

9:12AM

S38.00003: Colorado Learning about Science Survey for Experimental Physics (E-CLASS)

Invited Speaker: Heather Lewandowski

9:48AM

S38.00004: Using research-based assessment to improve teaching in your classroom and department:

New resources on the PER User's Guide

Invited Speaker: Adrian Madsen

10:24AM

S38.00005: TBA

Invited Speaker: Melissa Dancy

Session T38: Invited Session: Reichert Award Session: Preparing Students for the Transition from Instructional to Research Lab

Sponsoring Units: FEd

Chair: *Heather Lewandowski, University of Colorado Boulder*

Room: 709/711; Thursday, March 6, 2014 11:15AM – 2:15PM

11:15AM

T38.00001: Jonathan Reichert and Barbara Wolff-Reichert Award: Updating Lab Curricula via the Tom Sawyer method of painting a fence

Invited Speaker: Gabriel Spalding

11:51AM

T38.00002: Building Scholars One Mistake at a Time

Invited Speaker: Marty Johnston

12:27 PM

T38.00003: Results from a model of course-based undergraduate research in the first- and second-year chemistry curriculum

Invited Speaker: Gabriela Weaver

1:03PM

T38.00004: Capitalizing on Community: the Small College Environment and the Development of Researchers

Invited Speaker: M.R. Stoneking

1:39PM

T38.00005: Using instructional laboratories and research experiences in physics to build better people

Invited Speaker: Sean Robinson

Session W36: Invited Session: Panel Discussion: Increasing the Participation of Women in Physics--The Conferences for Undergraduate Women in Physics (CUWiP)

Sponsoring Units: CSWP

Chair: *Theodore Hodapp, American Physical Society*

Room: 703; Thursday, March 6, 2014 2:30PM – 7:18PM

2:30 0PM

W36.00001: Overview and History of CUWiP

Invited Speaker: Kevin Pitts

3:06PM

W36.00002: Initial findings from CUWiP

Invited Speaker: Eric Brewe

3:42PM

W36.00003: Hosting a CUWiP -- the fun and the challenges

Invited Speaker: Mette Garde

4:18PM

W36.00004: Panel Discussion on the Conferences for Undergraduate Women in Physics

Invited Speaker: Nicole Johnson

4:54PM

W36.00005: Panel Discussion on the Conferences for Undergraduate Women in Physics
Invited Speaker: Hsiu-Chuan Hsu

5:30PM

W36.00006: Panel Discussion on the Conferences for Undergraduate Women in Physics
Invited Speaker: Shannon Glavin

6:06PM

W36.00007: Panel Discussion on the Conferences for Undergraduate Women in Physics
Invited Speaker: Noelle Stiles

6:42PM

W36.00008: Panel Discussion on the Conferences for Undergraduate Women in Physics
Invited Speaker: Laurel Winter

Session W38: Invited Session: 20th Century Chinese Physicists and Physics

Sponsoring Units: FHP FIP

Chair: *Danian Hu, City College of New York, CUNY*

Room: 709/711; Thursday, March 6, 2014 2:30PM – 5:30PM

2:30PM

W38.00001: Chien-Shiung Wu: An Icon of Physicist and Woman Scientist in China
Invited Speaker: Yuelin Zhu

3:06PM

W38.00002: 2014 Beller Lectureship: Chinese Physicists Educated in the Great Britain during the First Half of the 20th Century
Invited Speaker: Xiaodong Yin

3:42PM

W38.00003: Mao and physics research in China in the 1950s-1960s: the H-bomb project and the Straton model
Invited Speaker: Tian Yu Cao

4:18PM

W38.00004: Some problems in the competition of high-temperature superconductivity research during the late 1980s
Invited Speaker: Bing Liu

4:54PM

W38.00005: A Brief History of the Institute of Theoretical Physics in the Chinese Academy of Sciences since 1978
Invited Speaker: Liu Jinyan

March Meeting: Premeeting Workshops

Professional Skills Development Workshop

Sheraton Denver Downtown Governor's Square 10; Sunday, March 2, 8:00 AM- 6:30 PM

Professional Skills Development workshops are designed to provide women physicists with professional training in effective negotiation, communication and leadership skills, as well as a special opportunity for networking. The primary workshop goal is to produce more women leaders in physics and to help these women achieve their full potential in the top ranks of their profession.

Energy Research Opportunities Workshop

Convention Center Room 301/302; Sunday, March 2 8:30 AM - 6:30 PM

This is a one-day workshop for graduate students and postdocs that highlights the contributions physics-related research can make towards meeting the nation's energy needs in environmentally friendly ways. The workshop is aimed at young physicists who are concerned about the environment and who would like to find ways to use their scientific and quantitative skills to help meet the challenges that the world faces.

The workshop features plenary talks by leaders in the field of energy research. After an overview talk, there are talks on different cutting-edge research areas. Each talk is aimed at the level of physics graduate students who are not experts in energy research. The goal of the workshop is to provide information to physics graduate students and postdocs on how they can contribute to energy and environmental solutions while doing exciting scientific research.

DPOLY Short Course

Multiscale Computational Approaches for Simulating Polymers from Atomistic to Mesoscale

Convention Center Room 103/105; Sunday, March 2 9:00 PM- 5:00 PM

The course will present recent advances in simulating polymers capturing the multiple length and time scales that determine their properties. The challenges that arise from the nature of polymers, followed by introduction of computational techniques including Monte Carlo and molecular dynamics simulations carried out on multiple length scales from atomistic simulations to coarse grained models as well as density functional theory methods will be discussed. Coarse graining encapsulating simple bead-spring methods to new approaches, which capture the interactions on the atomistic scale and transpose them to a larger length scale will be presented. The basic concepts will be followed by presentations of numerical simulations packages and new computer architectures for practical advice for setting up and running simulations.

ISS Workshop

International Space Station (ISS) Research Results and Post-Graduate Research Opportunities in Physical Sciences

Convention Center Room 401/402; Sunday, March 2, 2014 1:30 PM - 6:00 PM

The purpose of this Workshop is to allow members of the APS, and in particular, students and post-docs, to gain some familiarity with the interesting gravity-dependent phenomena that have been discovered from physical sciences research carried out on the International Space Station (ISS). The speakers will cover recent results from experiments in fluid physics, complex fluids and combustion science.

The Workshop will provide a better understanding of existing and planned ISS research capabilities and current funding opportunities. Attendees will have an opportunity to interact with NASA flight experiment Principal Investigators and ISS Program Office staff in a panel discussion at the conclusion of the session. A noteworthy participant will be an ISS astronaut with experience in operating Physical Sciences experiments on the ISS.

Careers in Physics Workshop

Convention Center Room 404; Sunday, March 2 4:00 PM- 7:00 PM

Are you a physics PhD graduate or working towards a physics PhD, and thinking about your next steps? Are you looking for guidance on how to discover a career which will tap into your talents, abilities, and interests, as well as pay the bills? If so, don't miss out on this great presentation at the APS March Meeting in Denver. □

March Meeting: Tutorials

Sunday, March 2

Convention Center

Tutorial Program Chair: March Meeting Program Chairs

Morning Tutorials

Convention Center

8:30 a.m. - 12:30 p.m.

Tutorial #1: Density Functional Theory

Room 201

Tutorial #2: Spintronics

Room 203

Tutorial #3: Photovoltaic Research Topics in a Changing World

Room 205

Tutorial #4: Graphene

Room 207

Afternoon Tutorials

Convention Center

1:30 p.m. - 5:30 p.m.

Tutorial #5: Assessing density functional theory and Many body perturbation theory from ABINIT

Room 201

Tutorial #6: Physics and the Brain Initiative

Room 203

Tutorial #7: Topological Materials – Registration Closed

Room 205

Tutorial #8: MATLAB for Physics Education and Research

Room 207

March Meeting: Editorial Events:

Session K0: Meet the APS Editors Reception

Sponsor: APS

Room: Sheraton Denver Downtown Plaza Court 4; Tuesday, March 4, 2014 7:00PM – 8:00PM

The APS Journal Editors invite you to join them for conversation and light refreshments. The Editors will be available to answer questions, discuss your ideas, and listen to your comments about the journals. All are welcome to attend.

DMP Executive Committee

The Executive Committee Officers for the 2014-2015 year, who begin their terms immediately following the March meeting in Denver, are:

Chair: Laura Greene (03/14-03/15)

Univ. of Illinois Urbana-Champaign

Chair-Elect: John Mitchell (03/14-03/15)

*Vice Chair: Michael Flatté (03/14-03/15)

Past Chair: David Cahill (03/14-03/15)

Univ. of Illinois Urbana Champaign

*Secretary/Treasurer: Robert Nemanich (03/14-03/17)

Councilor: James Robert Chelikowsky (01/13 - 12/16)

University of Texas, Austin

Members-at-Large:

Bruce Harmon (03/11 - 03/14)

Ames Laboratory

Charles Ahn (03/11 - 03/14)

Yale University

Mark Hybertsen (03/12 - 03/15)

Brookhaven National Laboratory

Susanne Stemmer (03/12 - 03/15)

University of California, Santa Barbara

Julie Borchers (03/13 - 03/16)

NIST

David Tanner (03/13 - 03/16)

University of Florida

* Emilia Morosan (03/14-03/17)

Rice University

*Jeffrey Neaton

University of California, Berkeley/Lawrence Berkeley National Laboratory

*Newly elected