



DCMP Newsletter

APS Division of Condensed Matter Physics, DCMP Winter 2018 Newsletter

Important Deadlines and Dates:

Los Angeles APS March Meeting	March 5 – March 9, 2018	Los Angeles Convention Center
DCMP/DMP New Fellows & Award Winners Reception	5:30-7:00 pm, March 6, 2018	J.W. Marriott, Platinum D
DCMP Business Meeting	7:00-8:00 pm, March 6, 2018	J.W. Marriott, Platinum A

A Note from the DCMP Chair

The March Meeting this year in Los Angeles will be the biggest yet, with more than 10,000 abstracts submitted. There will be 1050 invited talks in 110 invited talk sessions, 396 Focus Sessions, 313 Oral Sessions, and three poster sessions, promising something to match all interests. The DCMP is the largest Division of the American Physical Society and we play an important role in the success of the March Meeting, through the breadth and quality of our scientific sessions, but also through our outreach. A DCMP session focused on early career programs supported by the funding agencies will be held Monday evening. On Tuesday evening, you are invited to help us celebrate the newly elected DCMP fellows and to attend our DCMP business meeting. I hope you are looking forward to the meeting- see you there!

Meigan Aronson

2017 DCMP Election Results

The results of the 2017 Division of Condensed Matter Physics election for Vice Chair and Members-at-Large of the executive committee are:

Vice Chair: Eva Andrei

Members-at-Large: Leon Balents, Shawna Hollen, and Philip Phillips

Approximately 16% of eligible DCMP members voted in the 2017 DCMP election. We would like to congratulate those elected and express our gratitude to all the DCMP members who agreed to stand as candidates during this election. The DCMP benefits greatly from those who are willing to run for office and serve the condensed matter physics community. We would also like to thank our colleagues who will be leaving office in March 2018: Bill Halperin (past chair) and Martin Greven, Harold Hwang, and Adriana Moreo (members-at-large) have provided outstanding service to DCMP and APS and will be missed. Finally, thanks to the members of the 2017 DCMP Nominating Committee—Barbara Jones (chair), Carmen Almasan, Bill Halperin, and Brad Marston—for identifying a terrific and diverse slate of candidates, and to Allison Betz and her colleagues at MyDirectVote for the online and paper ballot distribution and counting.

The 2018 APS March Meeting

The 2018 APS March Meeting will be held in Los Angeles, California from Monday, March 5 to Friday, March 9, 2018. The 2018 March Meeting headquarters hotel is the JW Marriott Los Angeles, and the 2018 March Meeting venue is the Los Angeles Convention Center.

The complete 2018 March Meeting bulletin is available in electronic form. For more information, see: <http://www.aps.org/meetings/march/index.cfm>

For DCMP-sponsored sessions, see:

<http://meetings.aps.org/Meeting/MAR18/SessionIndex2?SponsorID=DCMP>

DCMP Sponsored Events: DMP/DCMP Fellows and Awards Reception and DCMP Business Meeting

The Division of Condensed Matter Physics will sponsor the following events during the 2018 March Meeting. This is your opportunity to interact with the Executive Committee and to become informed of the activities of the Division.

Tuesday, March 6

DCMP/DMP New Fellows & Award Winners Reception

5:30 - 7:00 p.m.

J.W. Marriott, Platinum D

DCMP Business Meeting

7:00 - 8:00pm

J.W. Marriott, Platinum A

DCMP Sponsored Prize Winners for 2018

Oliver E. Buckley Condensed Matter Prize

Paul Michael Chaikin, New York University

For pioneering contributions that opened new directions in the field of soft condensed matter physics through innovative studies of colloids, polymers, and packing

Lars Onsager Prize

Subir Sachdev, Harvard University

For his seminal contributions to the theory of quantum phase transitions, quantum magnetism, and fractionalized spin liquids, and for his leadership in the physics community

Davisson-Germer Prize in Atomic or Surface Physics

John E. Thomas, North Carolina State University

For his seminal contributions to the study of unitary Fermi gases, from their experimental realization to measurements of their collective mode dynamics, universal thermodynamic relations, and quantum transport coefficients

Frank Isakson Prize for Optical Physics

Andrea Cavalleri, Max Planck Institute & University of Oxford

Keith A. Nelson, Massachusetts Institute of Technology

For pioneering contributions to the development and application of ultra-fast optical spectroscopy to condensed matter systems, and providing insight into lattice dynamics, structural phase transitions, and the non-equilibrium control of solids

Richard L. Greene Dissertation Award in Experimental Condensed Matter or Materials Physics

Claire Donnelly, ETH Zurich – Paul Scherrer Institute

Hard X-ray Tomography of Three Dimensional Magnetic Structures

M. A. Mueed, Massachusetts Institute of Technology

Phases of Interacting Two-dimensional Carriers Using One-dimensional Density Modulation

Division of Condensed Matter Physics Graduate Student Travel Awards

The DCMP Graduate Student Travel Award Program has been established to assist the professional development and careers of graduate student researchers. This year, we awarded ten \$500 DCMP Travel Awards and ten Honorable Mention recognitions to allow graduate student members of DCMP to participate in 2018 APS March Meeting sessions. The selection was based on merit and the committee consisted of members of the DCMP Executive Committee.

The DCMP Graduate Student Travel Awards will be presented at the DCMP/DMP New Fellows and Award Winners Reception, Tuesday, March 6, J.W. Marriott, Platinum D

The recipients of the 2018 DCMP Graduate Student Travel Awards are:

Name/Institution

Rohit Babar, Indian Institute of Science Education and Research

Moritz Binder, Duke University

Matteo Ippoliti, Princeton University

Jingcheng Liang, Purdue University

Yunqiu (Kelly) Luo, The Ohio State University

Christopher Lynn, University of Pennsylvania

Hilal Saglam, Argonne National Laboratory

Zahra Taghipour, University of New Mexico

Jie Zhang, Rice University

Lihuang Zhu, Dartmouth College

Recipients of the 2018 DCMF Graduate Student Travel Honorable Mention Awards are:

Name/Institution

Arif Abdullah, University of Illinois at Urbana-Champaign
Omadillo Abdurazakov, North Carolina State University
Grace Causer, Australian Nuclear Science and Technology Organisation
Oksana Chubenko, The George Washington University
Ziwei Dou, University of Cambridge
Souratosh Khan, University of Arizona
Min Khanal, Auburn University
Ryan Rawl, University of Tennessee
Dhavala Suri, Birla Institute of Technology and Science
Kapila Wijayaratne, University of Virginia
Bin Yan, Purdue University

**Enabling Quantum Leap: Federal & Private Funding Opportunities in
Condensed Matter Physics & Materials Science**

Monday, March 5

7:30 p.m. – 9:00 p.m.

Los Angeles Convention Center, Petree Hall C

[Session D04](#)

This invited session and discussion will focus on programs run by federal agencies: NSF, DOE, AFOSR, Gordon and Betty Moore Foundation and DOD. The session will serve as one-stop source of information for potential applicants. It will also provide access to program officers involved in running the programs related to Condensed Matter Physics.

Kavli Session

Wednesday, March 7

2:30 p.m. - 5:30 p.m.

Los Angeles Convention Center, West Hall B

[Session P61](#)

Einstein, Gravitational Waves and a New Science

Barry Barish, Cal Tech

Topological and Quantum Matter (theory)

Shoucheng Zhang, Stanford

Frugal Physics and Global Health

Manu Prakash, Stanford

Novel Superconductors (experiment)

Ming Yi, Berkeley

The Dos Pueblos Engineering Academy

Amir Abo-Shaeer, Dos Pueblos Engineering Academy

March Meeting: Pre-meeting Workshops

DPOLY Short Course: The Gel, Elastomer, and Network Experience (GENE)

March 3 - 4, 2018, Location TBD

DBIO Short Course: Physics Meets Robotics: A Hands-On Locomotion Robophysics

March 4, 2018, Location TBD

GSOFT Short Course: Machine Learning and Data Science in Soft Matter

March 4, 2018, Location TBD

GERA & FECS Energy Research Workshop

March 4, 2018, Location TBD

Finding Your Scientific Voice: Improving Your March Meeting Presentation

March 4, 2018, Location TBD

Professional Skills Development Seminar for Women For Undergrads & Graduate Students

March 4, 2018, Location TBD

March Meeting: Tutorials

Sunday, March 4

Morning Tutorials, 8:30 am – 12:30 pm

Tutorial #1: Density Functional Theory

Instructors: Kieron Burke, University of California at Irvine; Neepa Maitra, Hunter College and the Graduate Center of the City University of New York; John Perdew, Temple University; Carsten Ullrich, University of Missouri-Columbia

Tutorial #2: Thermoelectrics

Instructors: Marco Bernardi, California Institute of Technology; Lucas Lindsay, Oak Ridge Nat'l Lab; G. Jeffrey Snyder, Northwestern; Vladan Stevanovic, Colorado School of Mines

Tutorial #3: Quantum Spintronics

Instructors: David D. Awschalom, University of Chicago; Christoph Boehme, University of Utah; Michael E. Flatté, University of Iowa; Evelyn Hu, Harvard University

Tutorial #4: Quantum Information and Spacetime

Instructors: John Preskill, California Institute of Technology; Daniel Harlow, Massachusetts Institute of Technology; Stephen Shenker, Stanford; Brian Swingle, University of Maryland.

Afternoon Tutorials, 1:30 pm – 5:30 pm

Tutorial #5: Hybrid Quantum Systems

Instructors: David Schuster, University of Chicago; Andrew Geraci, University of Nevada Reno; Mukund Vengalattore, Cornell University; Peter Rabl, Vienna Center for Quantum Science and Technology

Tutorial #6: Quantum Critical Systems

Instructors: Andrey Chubukov, University of Minnesota; Sung-Sik Lee, McMaster University; Yoni Schattner, Stanford University; James Analytis, University of California, Berkeley

Tutorial #7: Mathematica and Wolfram Language for Physics

Instructors: Kyle Keane, Massachusetts Institute of Technology; Daniel George, University of Illinois at Urbana-Champaign; Luke Titus, Wolfram Research; Vitaliy Kaurov, Wolfram Research

DCMP Executive Committee

The Executive Committee Officers and Members-at-Large for the 2017-2018 year (most terms begin after the March Meeting):

Officers:

Chair: Meigan Aronson, (3/17 - 3/18)
Texas A&M University
Chair-Elect: Paul Canfield, (3/17 - 2/18)
Iowa State University
Vice Chair: Daniel Arovas, (3/17 - 2/18)
University of California, San Diego
Past Chair: William Halperin, (3/17 - 3/18)
Northwestern University
Councilor: John Marston, (1/16 - 12/19)
Brown University
Secretary/Treasurer: Lance Cooper, (3/15 - 3/19)
University of Illinois, Urbana-Champaign

Members-at-Large:

Martin Greven, (3/15 - 3/18)
University of Minnesota, Minneapolis
Harold Hwang, (3/15 - 3/18)
Stanford University
Adriana Moreo, (3/15 - 3/18)
University of Tennessee, Knoxville
Erica Carlson, (3/16 - 2/19)
Purdue University
Stephen Nagler, (3/16 - 2/19)
Oak Ridge National Laboratory
Douglas Natelson, (3/16 - 2/19)
Rice University
Mark Freeman, (3/17 - 3/20)
University of Alberta
Kathleen Stebe, (3/17 - 3/20)
University of Pennsylvania
Rashid Zia, (3/17 - 3/20)
Brown University