



AMERICAN PHYSICAL SOCIETY

DIVISION OF POLYMER PHYSICS

NEWSLETTER
October 17, 2011

UPCOMING DEADLINES

Nominations from the membership for positions on the DPOLY Executive Committee are due Friday, **November 4, 2011** (see below).

Abstracts for the 2012 APS March Meeting are due **5:00 p.m. EST on Friday, November 11, 2011**.
Nominations for the 2012 Padden Award are due by **5:00 p.m. EST on Friday, November 11, 2011**.
Applications for Child Care Grants for the March Meeting are due by **December 16, 2011** (see below).

For International Members: APS encourages March Meeting participants to *apply for a visa as early as possible*, usually four to five months before the Meeting. A Meeting Invitation Letter, which can be requested on-line, takes 7 to 10 days to generate. More information is available at:

<http://www.aps.org/programs/international/visa/meetings/index.cfm>

2012 POLYMER PHYSICS PRIZE AND 2012 DILLON MEDAL RECIPIENTS

The 2012 Polymer Physics Prize will be awarded to **Matthew Tirrell** (University of Chicago): “*For his pioneering achievements in the areas of polymer dynamics, polymers at surfaces and interfaces, and polymers in confined geometries.*”

The 2012 Dillon Medal will be awarded to **Rachel Segalman** (University of California, Berkeley): “*For fundamental and technological contributions to the field of polymer science and engineering, especially in the area of rod-coil block copolymers.*”

The Polymer Physics Prize has been endowed by a generous matching grant from the Dow Chemical Company, and contributions from the LG Chemical Company and former Polymer Physics Prize winners. The Dillon Medal is sponsored by Elsevier, publisher of *Polymer*.

CALL FOR NOMINATIONS: DPOLY EXECUTIVE COMMITTEE ELECTIONS

The DPOLY Nominating Committee has proposed the following slate of candidates for positions on the DPOLY Executive Committee:

Candidates for Vice-Chair

Nitash Balsara (University of California, Berkeley)

Juan de Pablo (University of Wisconsin)

Candidates for member-at-large:

Alexei Sokolov (University of Tennessee)
Rich Vaia (Air Force Research Laboratory)

Members of the Division are hereby invited to submit nominations for these positions. As provided by the Bylaws, any candidate named by not less than 1% of Division members (currently, 14) shall be considered nominated. Nominations should be sent to the Secretary-Treasurer (email and fax info at the end of this newsletter) and must be received **no later than November 4, 2011.**

CALL FOR NOMINATIONS: Frank J. Padden Jr. Award, 2012

DPOLY encourages you to nominate a deserving graduate student for the Frank J. Padden, Jr. Award, which honors "Excellence in Polymer Physics Research." The number of quality applications is a good barometer of the future health of our Division, so please take a moment from your hectic schedule and nominate a deserving student. The Padden Award is sponsored by the College of Polymer Science and Polymer Engineering, University of Akron.

Application Criteria:

- (1) membership in DPOLY,
- (2) PhD candidate, and
- (3) has not completed requirements for a Ph.D. before November 11, 2011.

Nomination Packet:

- (1) Abstract
 - contributed talk in the DPOLY program at the March Meeting (submitted on-line).
 - electronic copy to the Chair of the DPOLY Education Committee (see below),
- (2) A curriculum vitae including education, awards, professional experience, presentations, and publications (2 page limit), and
- (3) A nominating letter addressing the quality of the graduate research and academic excellence of the nominee.

Send nominations by email to Karen Winey at winey@seas.upenn.edu using the subject line "Padden_name of student". Paper nominations will not be accepted. The deadline for receipt of all materials is **5 pm EST on November 11, 2011.**

2012 DPOLY SHORT COURSE

The 2012 DPOLY Short Course entitled "**Case Studies in Polymer Physics from the Industrial Research World**" will be offered the weekend before the March Meeting in Boston on Saturday, Feb 25, 2012 from 1:00 p.m. - 5:00 p.m and on Sunday, Feb 26 from 9:00 a.m. - 5:00 p.m. This short course is co-organized by Chris Soles (christopher.soles@nist.gov) and Karen Winey (winey@seas.upenn.edu).

Who Should Attend?

Graduate students, postdoctoral fellows, and principal investigators in academia and industry who are interested in learning about the applications of polymer physics in industry as a means of broadening their horizons, developing their careers, creating relevant research directions, or finding motivating examples.

Registration

Preregister for the Short Course when you preregister (Early Bird Registration) for the March Meeting.

Cost

Fees include both days.

\$150 APS Members

\$100 Students/Post Docs

\$250 Non-Member

Workshop Description

This workshop will present a series of case studies illustrating how fundamental skills in polymer physics have played a central role in enabling new and improved products in the marketplace today. Our panel of industrial experts will show, by example, how solving fascinating and challenging problems in polymer physics has been critical for generating economic success. The goal of this workshop is to both increase awareness of the importance of fundamental polymer physics in the industrial research as well as educate graduate students, postdocs, and research scientists about the career opportunities available in industry.

Our panel of experts will present a broad and diverse overview of polymer physics in current industrial research. Perspectives will vary from early career scientists to senior research fellows, small start-ups to Fortune 500 companies, and a range of technology sectors including advanced materials, consumer products, personal care, healthcare, energy, and electronics. In addition to presenting case studies of where concepts of polymer physics have had impact, each panelist will also be asked to discuss the outstanding challenges and current problems facing their technology sector.

2012 DPOLY MARCH MEETING

The next DPOLY March Meeting will be held February 27 - March 2, 2012 at the Boston Convention Center in Boston, MA. Andrey Dobrynin (University of Connecticut, avd@ims.uconn.edu) is the Program Chair.

Session chairs are sought for the contributed sessions. No experience is necessary and APS will send you guidelines. If you are interested in serving as a session chair, please email Andrey your contact information (name, institution, mailing address, and email). Also, about 14 volunteers (locals from the area if possible) are needed to help at the Sorters meeting to be held Friday, December 2, 2011 at APS headquarters in College Park, Maryland. Please contact Andrey to make arrangements. (DPOLY has limited funds to help support volunteers' expenses.)

The sorting topics for the 2012 meeting, including special focus topics, are listed below:

01. POLYMERS AND SOFT MATTER PHYSICS FOCUS SESSIONS

- 01.1.1 Thin Film Block Copolymers
- 01.1.2 Crystallization in Multicomponent and Hybrid Systems
- 01.1.3 Long-time, Entangled Dynamics in Polymer Melts
- 01.1.4 Dynamics of Polymers: Phenomena due to Confinement
- 01.1.5 Block Copolymer Micelles and Polymersomes
- 01.1.6 Interparticle Interactions in Polymer Nanocomposites
- 01.1.7 Directed Assembly of Hybrid Materials
- 01.1.8 Organic Electronics and Photonics (DMP/DPOLY)
- 01.1.9 Polymers for Energy Storage and Conversion (DPOLY/ DMP)
- 01.1.10 Micro and Nano Fluidics (DPOLY/DFD)
- 01.1.11 Heterogeneous Colloids

- 01.1.12 Advanced Optical Probes of Soft Matter (DPOLY/DBIO)
- 01.1.13 Fluctuation-Induced Forces in Soft Matter and Polymeric Systems
- 01.1.14 Gelation and Glass Transition in Colloids and Soft Matter Systems
- 01.1.15 Soft Matter Physics of Drops, Bubbles, Foams and Emulsions
- 01.1.16 Nano to Meso-scale Structure in Ordered Soft Matter: Liquid Crystals and Liquid Crystal Elastomers
- 01.1.17 DNA-Coated Colloidal Particles (DPOLY/DBIO)
- 01.1.18 Statistical Physics of Active Systems Away From Detailed Balance: Motors, Swimmers, and all that (DPOLY/DBIO)
- 01.1.19 Soft Matter Physics of Heterogeneous Membranes (DPOLY/DBIO)
- 01.1.20 Translocation through Nanopores (DPOLY/DBIO)
- 01.1.21 Hydrophobic Interactions and Hydrogen Bonding Networks in Polymeric and Soft Matter Systems (DPOLY/DBIO)
- 01.1.22 Single-Molecule Biophysics I: Nucleic Acids (DBIO/DPOL/DCOMP)
- 01.1.23 Single-Molecule Biophysics II: Proteins (DBIO/DPOLY/DCOMP)
- 01.1.24 Physics of DNA and Chromatin (DBIO/DPOLY)
- 01.1.25 Structure and Dynamics of Membranes (DBIO/DPOLY/DMP)
- 01.1.26 Biological Physics of the Cytoskeleton and Biomechanics (DBIO/DPOLY)
- 01.1.27 Physics of Proteins I: Structure and Folding (DBIO/DPOLY/DCOMP)
- 01.1.28 Physics of Proteins II: Dynamics and Function (DBIO/DPOLY)
- 01.1.29 Physics of Proteins III: Protein-protein Interactions and Aggregation (DBIO/DPOLY)

STANDARD SORTING CATEGORIES

- 01.2 Semi Crystalline Polymers
- 01.3 Liquid Crystalline Order in Polymers, Soft Matter and Complex Fluids
- 01.4 Polymeric Glasses
- 01.5 Polymer Melts and Solutions
- 01.6 Elastomers and Gels
- 01.7 Charged and Ion-Containing Polymers
- 01.8 Physics of Copolymers
- 01.9 Polymer Blends
- 01.10 Polymer Composites
- 01.11 Electrically and Optically Active Polymers
- 01.12 Surfaces, Interfaces, and Polymeric Thin Films
- 01.13 Friction, Adhesion, and Fracture of Polymers
- 01.14 Biopolymers: Molecules, Solutions, Networks, and Gels
- 01.15 New Experimental, Theoretical, and Computational Methods in Polymer and Soft Matter Physics

March Meeting Child Care Grants

Small grants of up to \$400 are available to assist meeting attendees who are bringing small children or who incur extra expenses in leaving them at home (i.e., extra daycare or babysitting services).

A link to information on the program is available on the DPOLY home page.

The application deadline is December 16, 2011.

APS Outreach Mini-Grants

The American Physical Society is happy to announce that it will award several grants, up to \$10,000, to encourage the development of new outreach activities. Programs to be funded may include not only the more traditional K-12 outreach but also engaging the general public within physics and informing them about the importance of physics in their daily lives. Innovative ideas and new approaches, particularly if they have the potential to lead to sustained activities beyond the duration of the grant, are particularly encouraged. To find out more information about the program including application procedures, please visit www.aps.org/programs/outreach

Upcoming Meetings of Interest to DPOLY Members

See the Resources section on the DPOLY web site for information and links to meetings of interest to the DPOLY community: <http://www.aps.org/units/dpoly/resources/index.cfm>

APS 2012 Beller and Marshak Lectureships

The APS Committee on International Scientific Affairs (CISA) invites nominations for the 2012 Beller and Marshak Lectureships, which provide travel funds to support distinguished international physicists living outside of the U.S. who have been invited to speak during sessions at the annual March and April APS meetings. The Beller Lectureship was endowed by the estate of Esther Hoffman Beller for the purpose of bringing distinguished physicists from abroad as invited speakers at APS meetings. The Marshak Lectureship, endowed by the late Ruth Marshak in honor of her late husband and former APS President, Robert Marshak, provides travel support for physicists from "developing nations or the Eastern Bloc" invited to speak at APS meetings.

Four lectureships are awarded every year (\$2,000 maximum for each lectureship). The lectureships support travel for distinguished speakers during sessions at the following APS meetings:

Beller Lectureship – for a distinguished physicist from outside of the United States

- Two (2) lectureships for the March Meeting (27 February – 2 March 2012, Boston, MA)
- One (1) lectureship for the April Meeting (31 March – 3 April 2012, Atlanta, GA)

Marshak Lectureship – for a physicist from a developing country or Eastern Europe

One (1) lectureship for either the March or April Meeting

Along with the travel funds, the recipients will be honored in the meeting program and/or other printed materials as recipients of the Beller or Marshak Lectureship.

The deadline for nominations for the 2012 lectureships is Wednesday, 9 November 2011. The lectureships will be announced by mid-December. You are welcome to nominate those physicists who have been or will be invited as speakers for your sessions to receive this distinction and the accompanying travel funds. Nominations can be submitted online at <http://ultron.aps.org/forms/aps.cgi?ID=1065>.

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