

Newsletter Fall 2023

Chair's Welcome

Planning for the **2023 APS March Meeting** (*in-person* and *virtual*) March 3-8, 2024 in Minneapolis is underway! DPOLY Program Chair Prof. Bryan Boudouris (Purdue U.) and many volunteers from our robust DPOLY membership have assembled an exciting set of topics for the meeting that includes <u>30 Focus Sessions</u> in addition to some of our timeless <u>standard sorting categories</u>. The deadline for abstract submissions is

October 20, 2023 at 5 p.m. Eastern Time at https://march.aps.org/attendees-presenters/abstracts



Continuing our standing tradition of short courses, our short

course organizers have put together what I anticipate will be an outstanding DPOLY Short Course on *The Polymer Physics of Additive Manufacturing*.

Time-honored traditions in the DPOLY Program also include the APS Polymer Physics Symposium (Tuesday morning), the John H. Dillon Medal Symposium (Tuesday afternoon), and the Frank J. Padden Award Symposium (Tuesday midday). I strongly encourage you to nominate Ph.D. students whom you have supervised or with whom you have worked closely. **Padden Award nominations** are due by October 20, 2023 at 5 p.m. Eastern Time.

This summer DPOLY was pleased to sponsor the 3rd <u>Virtual Polymer Physics Symposium</u> led by Early-Career researchers. Please read about a few of the program highlights and awardees and contact the organizers for more details.

Finally, DPOLY is pleased to offer two student travel awards:

- In memory of Dr. Ryu's dedication to science, education, and outreach and his enthusiastic participation in many APS March Meetings, the <u>Chang Yeol Ryu Travel Fund</u> will provide two (2) \$1,000 awards to support travel by students attending the APS March Meeting for the first time to present their research. Nominations are due October 27, 2023 by 5 p.m. Eastern Time.
- DPOLY established the <u>Undergraduate Travel Award</u> in 2023 that provides up one (1) \$2000 award for an undergraduate researcher in polymer physics to present at their first APS March Meeting, with the goal of improving the visibility of diversity in our discipline. Applications are due October 6, 2023 by 6 p.m. Eastern Time.

In the spirit of inclusion which underpins our vibrant DPOLY community, please be sure to renew your membership and to encourage friends, colleagues, and students to join anew or to renew their memberships as well! You might even consider an <u>APS Life Membership</u>. Our members form an important foundation for exciting programming, fellowship and award programs, and our continued efforts to promote equity and inclusion in polymer physics.

Sincerely, Ryan Hayward, *DPOLY Chair*

2024 DPOLY March Meeting Program

Call for abstracts

NOTE: APS March Meeting will have <u>joint</u> in-person and virtual (3/3-8/2024) programs. When submitting an abstract, you must select only one presentation method for your oral or poster presentation:

If you select virtual, you may attend the meeting in-person to network and enjoy other talks, but your presentation will be during the virtual session of the program. Your selection may be changed up until the abstract submission deadline. However, it cannot be changed after the abstract deadline. Please see the March meeting <u>Virtual Meeting Experience Webpage</u> for more information.

Focus sessions and Standard Sorting Categories may be found through the March Meeting Webpage.

Abstract Deadline: 5:00 pm ET on Friday October 20, 2023

DPOLY Abstract Tutorial Video

DPOLY Members and former Executive Committee Members-at-Large Prof. Whitney Loo and Prof. Thomas O'Connor graciously prepared a video tutorial oriented toward early career members with some tips and tricks related to APS March Meeting Abstracts (17 min run time). We encourage you to check out <u>the video</u> as well as the list of <u>Focus sessions and Standard Sorting Categories</u> for the 2024 March Meeting.

2024 Frank J. Padden Jr. Award Nominations

DPOLY is soliciting nominations of PhD students for the Frank J. Padden Jr. Award for Excellence in Polymer Physics Research, an annual highlight of the APS March DPOLY program since 1995. For details please visit the <u>Padden award webpage</u> and send nominations by email to Moon Park (moonparkAPS@gmail.com) using the subject line "Padden_name of student". Complete nomination packages will include: (1) a 2-page CV of the nominee, (2) a nominating letter addressing the quality of graduate research and academic excellence of the nominee, and (3) an acceptable abstract for a contributed talk in the DPOLY March Meeting Program.

Nomination Deadline: 5:00 pm ET on Friday October 20, 2023

Please nominate PhD students whom you have supervised, or with whom you have worked closely, in the field of polymer physics. DPOLY reimburses meeting registration for all finalists from overseas. DPOLY especially encourages nomination of students from groups who have been traditionally underrepresented in physics.

We are grateful to the <u>University of Akron</u> for sponsoring the finalists' dinner and look forward to the 2024 Padden Award Session!

Chang Yeol Ryu Travel Award

Chang Yeol Ryu was an enthusiastic attendee of the APS March Meetings and participant in DPOLY sessions. Whether in the classroom, his laboratory, or his office, Dr. Ryu had a significant impact on the education and career path of many students. To honor his incredible passion, APS will provide two \$1,000 awards in memory of Dr. Ryu to support travel by students attending the APS March Meeting for the first time and presenting their research. For further details on the nomination and selection process please visit the <u>Award Webpage</u>.

Nomination Deadline: 5:00 pm ET on Friday, October 27, 2023

We thank the generosity of more than 80 and counting donors that enabled this new travel award. Help honor the amazing legacy of Chang Yeol Ryu by donating to the Chang Yeol Ryu Travel Fund!

Undergraduate Travel Award

DPOLY has established an Undergraduate Travel Award to provide funding for undergraduate students doing research in the area of polymer physics to attend and present their research findings during the APS March Meeting (poster or oral presentations) for the first time.

Application Deadline: 5:00 ET on Friday, October 6, 2023

For further details on the nomination and selection process please visit the Award Webpage.

2024 DPOLY Short Course: Polymer Physics of Additive Manufacturing

The topic on "Polymer Physics of Additive Manufacturing" is being planned by Moon Park (moonpark@postech.ac.kr), Jonathan Seppala (jonathan.seppala@nist.gov), Peter Olmsted (peter.olmsted@georgetown.edu), Emily Davidson (edavidson@princeton.edu), and Leanne Friedrich (leanne.friedrich@nist.gov) for in-person and virtual attendance on March 2-3, 2023.

Course Description: The 2024 APS DPOLY Short Course on the Polymer Physics of Additive Manufacturing (AM) aims to serve as a polymer/soft matter physics-oriented introduction to core and emerging additive manufacturing techniques and industries. The course will connect the physics of polymeric materials and non-equilibrium processing to the properties of manufactured parts. Talks will cover experimental, computational, and theoretical approaches to the AM of polymers. Specific AM techniques will include thermoplastic extrusion, photopolymerization (including both layer-by-layer and volumetric approaches), direct ink writing, powder bed fusion, and bioprinting. Speakers will be drawn from academia, national laboratories, and industry.

Who Should Attend: Students, postdocs, faculty, government researchers, and industry professionals interested in the physics and principles underlying core and emerging additive manufacturing techniques.

Additional details on invited speakers and schedule will be posted on the Short Course Website.

<u>Virtual Polymer Physics Symposium: Organized by Early Career Researchers in Polymer Physics Online Community</u>

We are thrilled to highlight the success of the Virtual Polymer Physics Symposium (VPPS) funded by APS DPOLY enabling the use of interactive platforms and monetary awards for top poster presenters. This event was conceptualized and brought to fruition by a dedicated group of early career researchers, all of whom met through their active engagement within DPOLY: Dr. Liliana Bello, Divya Iyer, Dr. Pierre Kawak, Anastasia Neuman, Dr. R. Bharath Venkatesh, and Kathryn Wilcox.

Over two days (August 7-8, 2023), VPPS showcased:

- 21 technical talks, contributed exclusively by graduate students and postdocs, encompassing four thematic sessions:
 - o Structure-Property Relationship in Polymeric Systems
 - o Dynamics and Thermal Transitions in Polymers
 - o Bioinspired Materials and Phenomena
 - o Polymers at the Nanoscale
- 16 Poster Presentations and a spirited competition to recognize innovation. To reduce the entry barrier, participants were encouraged to prepare posters in Table of Contents graphics style. Congratulations to the poster presentation winners:



1st Place: Dr. Atreyee Banerjee Max Plank Institute for Polymer Research



2nd Place: Fahed Albreiki UCLA Chemical & Biomolecular Engineering



3rd Place: Lucas Attia MIT Chemical Engineering

- A Diversity, Equity, and Inclusion (DEI) session where participants were divided into small groups with discussion leaders to talk about the latest DEI challenges in the field.
- Five hours of networking sessions spread throughout the event to promote scientific discussion and collaboration, enriched by Spatial Chat's interactive interface sponsored by DPOLY.
- A diverse career panel featuring 6 polymer physicists, including professors from every career stage and leading scientists in industry and national labs. More information about the panelists can be found through here: https://sites.google.com/view/vpps23/home

VPPS attracted the active virtual participation of 106 independent scientists from around the world over 2 days. Beyond the event's immediate impact, VPPS sets the foundation for future virtual events focused on career development of Early Career Researchers. APS DPOLY commends its early career members for their vision and drive, and we are proud to support their effort.

Prizes and Awards

With great anticipation, the APS will formally announce the winners of the 2024 APS Polymer Physics Prize, the 2024 John H. Dillon Medal, and the 2023 Class of APS Fellows recognizing members of the Polymer Physics community at various career stages. Stay tuned for these announcements that are expected in the October 11-18, 2023 time period.

Best regards,

The DPOLY Executive Committee