DPOLY 2020 Spring Newsletter 1

Dear DPOLY community,

We hope that you are doing well during this time while normal life is disrupted or worse. We look forward to better times. We are grateful to be part of a community pressing ahead in various ways discussed in this newsletter.
If you had communication subscription problems which were discussed in the previous newsletter, we hope that you found a solution. Also, please remember to renew your membership in DPOLY, not just APS. Otherwise, you might unfortunately have another reason for missing DPOLY mailings. ☹

Organizing the 2021 March meeting

The DPOLY program chair, Pinar Akcora, is working towards developing an exciting program for the APS March Meeting 2021 in Nashville! If you are interested in organizing/co-organizing an Invited Session or a Focus Session at the upcoming March Meeting, please email Pinar at pakcora@stevens.edu by the end of May. Pinar is accepting your ideas and suggestions concerning specific sessions from the DPOLY community to create an excellent program for 2021.
Plans and discussion with APS are in process for recognition and celebration of the Polymer Physics Prize and Dillon Medal awards for 2021 and 2020.

Nominating

June 1 Please consider nominating colleagues for the Polymer Physics Prize, the John H. Dillon Award, and the APS Fellowship. The deadline is June 1, 2020. The rules for the nomination are posted at the DPOLY website https://www.aps.org/units/dpoly/awards/index.cfm. Please keep in mind that nominations for the Frank J. Padden Jr. award are due to Mahesh (maheshkm@umn.edu) by October 23, 2020, and for the UKPPG/DPOLY lecturer to Amalie (alfrisc@sandia.gov) by December 31, 2020. You may nominate colleagues for other APS awards; information about these is listed under https://aps.org/programs/honors/index.cfm.
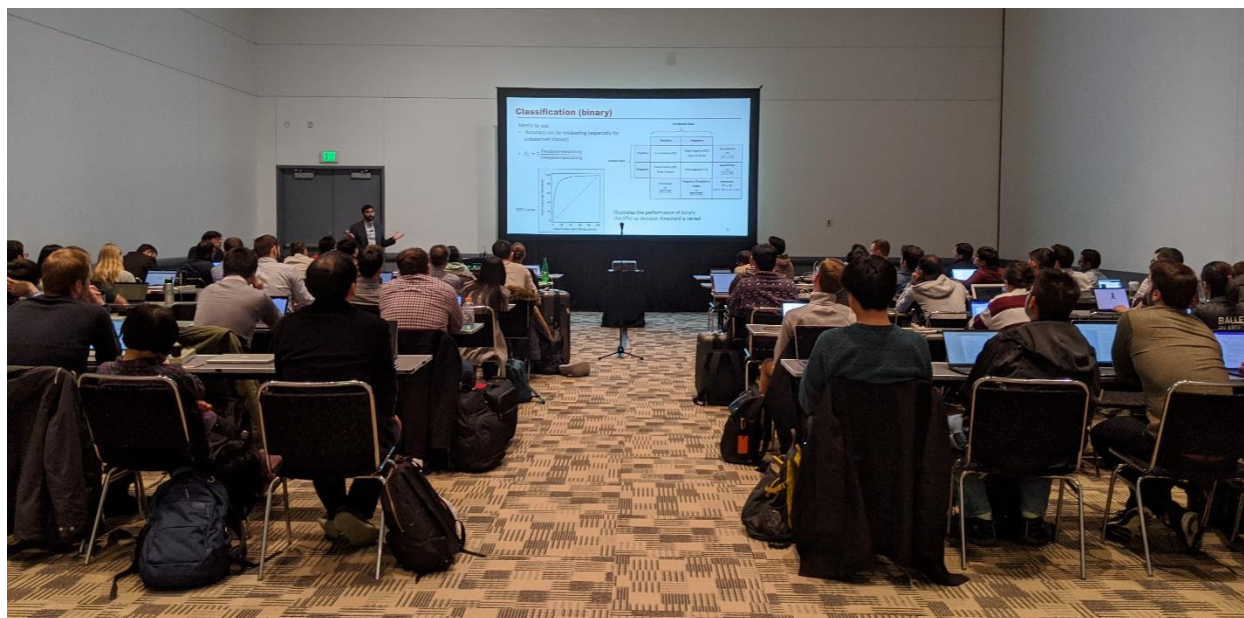
Virtual 2020 March meeting

Aside from the virtual Padden Symposium, DPOLY also participated in the APS Virtual Meeting with a joint DPOLY/DSOFT virtual session titled "Dynamics of Polymers and Soft Materials: Nano- to Meso-Scale". This session was hosted by Jeffrey Ethier at IIT, Chicago on Friday, March 6th. The session consisted of 11 contributed talks and reached 30 total participants, with topics ranging from dynamics in polymer nanocomposites to ion containing polymers to polyelectrolyte complexes.

The Padden Award Symposium was held on Wednesday March 4th, organized by Ramanan Krishnamoorti. All twelve finalists delivered their outstanding presentations, innovative research, and discussion during questions. Nicole S. Michenfelder-Schauser, advised by Rachel Segalman, of UCSB was selected by the DPOLY education committee to be the winner of the Frank J. Padden Jr. Award for 2020! She presented "Solvation-Site and Dielectric Control of Ion Conduction in Polymer Electrolytes". Congratulations!! You may view the full recorded session; details are at https://www.aps.org/units/dpoly/awards/padden-winner.cfm. This symposium continues to illustrate the bright future of polymer physics.

Short course 2020

Debbie Audus (NIST) and Jon Whitmer (Notre Dame) organized this year's DPOLY short course on "Machine Learning for Polymer Physicists." On Day 1, the short course covered the basics of machine learning including hands-on coding tutorials using Google Colaboratory that focused on neural networks, Gaussian processes and natural language processing. The session was interactive, facilitated by the use of Jupyter notebooks that implemented machine learning methods on problems practically relevant to polymer researchers. Speakers received lots of great questions from the 68 people in attendance. Unfortunately, the short course was then cut short due to the untimely cancelation of the March Meeting. Despite these difficulties, a virtual Day 2 was held the Wednesday after with five out of six of the original speakers giving excellent tutorials to up to 42 people. The speakers focused on accessing the challenges and opportunities of the field and how to approach polymer physics problems from a machine learning perspective---true tutorials. Due to the challenges associated with a virtual session, a group brainstorming project, which had been planned for the short course, was cut. The organizers would like to thank P&G for generous sponsorship, the attendees for their patience during the uncertainty surrounding the APS meeting, and the speakers for their great service to DPOLY, including flying to Denver and then giving virtual talks.

Valentin Stanev (U. Maryland) here giving an Introduction to Machine Learning at the DPOLY Short Course 2020.

The DPOLY Executive Committee