



120 Physical Sciences Building (PSB), Cornell University

- 8:00 – 8:30 am** **Breakfast & Registration – *PSB Clark Atrium***
- 8:30 – 8:45 am** **Welcome Remarks and Introduction – *120 PSB***
Melissa Hines, Director of the CCMR, Cornell Chemistry and Chemical Biology; with the Symposium Organizing Committee: Profs. Lena Kourkoutis and David Muller, Applied and Engineering Physics.
- 8:45 – 9:45 am** **Sproull Lecture – Molecular Machines Captured in Motion at High Resolution by Single-Particle Cryo-EM**
Prof. Professor Joachim Frank, Biochemistry and Molecular Biophysics and Biological Sciences, Columbia University, Howard Hughes Medical Institute Investigator.
- 9:45 – 10:30 am** **3D Architecture and Composition of Cells and Tissues Using Scanned Electron Probes**
Prof. Richard Leapman, Chief, Laboratory of Cellular Imaging and Macromolecular Biophysics, National Institute of Biomedical Imaging and Bioengineering (NIBIB), NIBIB's Scientific Director.
- 10:30 – 10:45 am** **Coffee Break & Posters – *PSB Clark Atrium***
- 10:45 – 11:30 pm** **Cryogenic TEM in Soft Matter: Designed Nanostructure with Polymers and Peptides**
Prof. Darrin Pochan, Chair, Materials Science and Engineering, University of Delaware.
- 11:30 – 12:00 pm** **Observing Battery and Fuel Cell Dynamics with *In Situ* Liquid Cell Transmission Electron Microscopy.**
Megan Holtz, Graduate Student, Applied and Engineering Physics, Cornell University.
- 12:00 – 1:00 pm** **Lunch – *PSB Clark Atrium - By Invitation and Tickets ONLY***
- 1:00– 1:45 pm** **Electromagnetic Field Mapping at the Nanoscale Using Electron Holography**
Dr. Rafal Dunin-Borkowski, Director, Ernst Ruska-Centre for Microscopy and Spectroscopy with Electrons, Peter Gruenberg Institute Research Centre, Juelich, Germany.

- 1:45 – 2:15 pm** **Materials Characterization at the Atomic Scale**
Prof. David Muller, Applied and Engineering Physics, Cornell University.
- 2:15 – 2:30 pm** **Coffee Break & Posters – *PSB Clark Atrium***
- 2:30 – 3:15 pm** **High Resolution EELS: Ever Expanding Detail from Phonons to Core Losses.**
Prof. Phil Batson, Physics, Rutgers
- 3:15 – 3:45 pm** **Mapping Chemical and Physical Processes at Solid-Liquid Interfaces using Cryo-Electron Microscopy**
Prof. Lena Kourkoutis, Applied and Engineering Physics, Cornell University.
- 3:45 – 6 pm** **Poster Session – Reception & Refreshments – *Baker Portico***