

WORKSHOP # 6
October 8, 2025
NSLS-II, Bldg 745, Room 183

Frontiers in Soft Materials

Organizers: Eliot Gann (BNL), Ruipeng Li (BNL), Dean DeLongchamp (NIST), Greg Doerk (BNL), Ajith Pattammattel (BNL), Honghu Zhang (BNL), Patryk Wasik (BNL), Lin Yang (BNL), Andrei Fluerasu (BNL), Lutz Wiegart (BNL), Ben Ocko (BNL) and Masafumi Fukuto (BNL)

As soft materials grow in technological and societal importance, the adequacy of current nanocharacterization tools must be reevaluated. These systems, many radiation-sensitive, heterogeneous, weakly crystalline, and hierarchically structured, pose unique challenges, especially under demanding environmental conditions. This workshop will bring together leading researchers to identify frontier challenges in characterizing complex soft materials, refresh the community's vision for future needs, and explore how X-ray capabilities can evolve over the next decade. Special focus will be given to opportunities in the tender X-ray range, important for probing biologically and environmentally relevant elements, and to advances in coherence, dynamics, and imaging that can overcome current limitations in flux, energy range, detection, and environmental suitability. We aim to gather a diverse community spanning the biological, materials, physical, and chemical sciences, as well as industry, to spark discussion and shape future directions together.

Start Time (ET)	Title	Speaker (Affiliation)
Oct 7, 2025		
6:00-7:30 pm	Dinner (provided) - Building 742	
Oct 8, 2025	Building 745, Room 183	
8:30 am	Breakfast (coffee, tea, pastries) and check-in	
9:00 am	Kickoff and Welcome	Erik Johnson (BNL)
9:10 am	Introduction	Eliot Gann (BNL)
9:15	Keynote Soft Materials Science	Ting Xu (UC Berkeley)
10:05	Biomaterials / Bio Inspired Materials	Esther Gomez (Penn State)
10:35	Break (coffee, tea, snacks) / Posters / Group Photo	
11:00	Colloids and Complex Fluids	David Pine (NYU)
11:30	Polymers and Composites	Robert Hickey (Penn State)
12:00	Lunch (provided) / posters	
1:00	Interfaces	Mark Schlossman (U Illinois Chicago)
1:30	Separation Science	Greg Su (LBNL)
2:00	Dynamics / Covalent Networks	Yu Zhong (Cornell)
2:30	Drug Delivery	Peter Beaucage (NIST)
3:00	Break (coffee, tea, snacks) / Posters	
3:30	Batteries and Mesoscale Transport	Esther Takeuchi (BNL)
4:00	Moderated Panel and Discussion	Eliot Gann and Ruipeng Li (BNL)
5:00	Adjourn	

