

Workshop: Machine Learning in Autonomous Science: Synthesis, Characterization, and Theory

Organizers: Yongtao Liu, Rama Vasudevan, Maxim Ziatdinov, Kevin Roccapiore

Time: Monday, August 7

Location: Salon B, Crowne Plaza Knoxville

Time (ET)	Speakers	Presentation Titles
8: 00 – 8: 20	Rama Vasudevan	Welcome and introduction
8: 20 – 9: 05	Kelsey Snapp	Unravelling Hierarchical Polymers using Self-Driving Labs
9: 05 – 9: 50	Jehad Abed	Towards accelerating catalyst discovery: how to bridge the gap between modeling, experiments, and large-scale integration
9: 50 – 10: 00	Break	
10:00 – 10:45	Ayana Ghosh	Machine learning guided structural mode engineering in perovskite oxides
10:45 – 11:30	Jian Javen Lin	Physics Constrained Multi-objective Bayesian Optimization of Digital Light Processed Thermoplastics
11:30 – 12:15	Huan Tran	Polymer Genome approach for functional polymer design
12: 15 –1: 30	Lunch on your own	
1:30 – 2:15	Maria Chan (virtual)	Modeling and AI/ML for Microscopy and Spectroscopy
2:15 – 3:00	Matthew Boebinger	Automated Fabrication and Characterization of Nanoscale Defect Structures for Enhanced Properties via Aberration-Corrected STEM
3:00 – 3:45	Sumner Harris	AI-driven synthesis of thin film materials with pulsed laser deposition
3: 45 – 3: 55	Break	
3: 55 – 4: 55	Maxim Ziatdinov	Hands on tutorial: Active (machine) learning for automated experiments