Morning session 1: 9:00-10:30. Chair: Kejie Zhao

9:00-9:30: Dr. Weinong Chen, Purdue (Invited): High-speed Visualization of Impact Damage using Synchrotron X-ray.

9:30-9:45: Yizhou Nie, Purdue: Dynamic Crack Propagation from a Notched Particle Reinforced Composite

9:45-10:00: Dandan Wang, University of Michigan: Mechanisms of abrasion in nonwovens and strategies for abrasion resilient nonwovens

10:00-10:15: Isha Gupta, University of Michigan: Continuum-based mechanics models for stress and phase distributions in oxide layers formed on zirconium alloys

10:15-10:30: Rong Xu, Purdue: Mechanical and Structural Degradation of LiNiMnCoO2 Cathode in Li-Ion Batteries

10:30-11:00: Coffee break

Morning session 2: 11:00-12:30. Chair: Caroline Baker

11:00-11:15: Sean Conaway, Purdue: Microfiber Fracture Mechanics

11:15-11:30: Katie Riley, Purdue: Modeling of Bio-Inspired, Snapping Shells with Magnetically Aligned Reinforcements

11:30-11:45: Alfonso Campos, Purdue: Microstructural Limits of Porous Electrode Theory

11:45-12:00: Sugrim Sagar, IUPUI: Impact property of 3D printed 15-5 stainless steel

12:00-12:15: Bohan Wang, UIUC: Wave propagation in gel

12:15-12:30: Chandra Prakash, Purdue: Chemistry Dependent Interface Shock Viscosity in Energetic Materials

12:30-1:30: Lunch break

Afternoon session 1: 1:30-3:00. Chair: Rong Xu

1:30-2:00: Dr. Taher Saif, UIUC (Invited): Living micromachines

2:00-2:15: Lingbin Meng, IUPUI: Tensile Property of 3D Printed Polymer Materials for Flexible Electronics

2:15-2:30: Caroline Baker, Purdue: Applications of Granular Mechanics at the Mesoscale

2:30-2:45: Yang Lai, UIUC: Probing the swelling-dependent mechanical and transport properties of polyacrylamide hydrogels through AFM-based dynamic nanoindentation
2:45-3:00: Nicholas Kerschen, Purdue: Investigation into Impact Response of HMX Particles

3:00-3:30: Coffee break

Afternoon session 2: 3:30-4:45. Chair: Katie Riley

3:30-3:45: Haohui Zhang, UIUC: A Large Deformation Theory Coupling Photochemical Reaction and Electrochemistry for Light-Responsive Gels

3:45-4:00: Myungwon Hwang, Purdue: Invariant transition waves in bistable lattices for energy harvesting

4:00-4:15: Yunlan Zhang, Purdue: Two-Dimensional Phase Transforming Cellular Materials

4:15-4:30: Ankit Agarwal, Purdue: Experimental and Mechanical Characterization of Surrogate Energetic Particle-Binder Composites

4:30-4:45: Hong Sun, Purdue: Atomistic origins of high capacity and high structural stability of polymer derived SiOC anode materials

4:45-5:00: Yasasvi Bommireddy, Purdue: Multi-scale Experimental and Model Based Characterization of Powder Compaction

5:00: End of meeting