

Purdue University School of Materials Engineering

**9th Annual Soft Materials
Summer Research Symposium**

Summer 2022 • Tuesdays • 11:00 AM • FRNY B124

June 7

Developing coarse grained simulations of liquid crystals with genetic algorithms
Dylan Fortney (PI: Savoie, CHE)

Discontinuous shear-thickening of highly-loaded polymer-ceramic suspensions
Ria Corder, Ph.D. (PI: Erk, MSE)

June 14

Visualizing stresses via cutting of an elastomer utilizing mechanophores
Tyler Roberts (PI: Beaudoin/Davis, CHE)

Effect of Magnetic Remanence on Mechanics of Magneto-Rheological Elastomers
Jacob McGough (PI: Christov/Cushman, ME)

June 21

Balancing mechanical and conductive properties in radical polymer systems
Dylan Gilley (PI: Savoie, CHE)

Influence of processing on extrudate in extrusion deposition additive manufacturing
Pasita Pibulchinda (PI: Pipes, AAE)

June 28

Mechanical testing and modeling of auxetic foams for rehabilitation applications
Chaithanya Vinay Valivarthi (PI: Youngblood, MSE)

Damage quantification in polymer composite utilizing mechanophore
Nazmul Haque (PI: Davis, MSE)

July 5

NO Meeting – Happy 4th of July Week!

July 12

Nanocellulose coated all bio-based molded pulp containers for food packaging
Jingxuan Zhang (PI: Youngblood, MSE)

Rheology of concentrated surfactant solutions
Parth Kelkar (PI: Erk, MSE)

July 19

Designing mechanically robust thermal interface materials
Geeta Pokhrel (PI: Davis/Howarter, MSE)

Predicting cation performance in hybrid perovskites
Panayotis Manganaris (PI: Mannodi Kanakkithodi, MSE)

July 26

Sub-nanometer precision polymer patterning on glass
Emmanuel Nava (PI: Claridge, CH)

Characterizing soft materials with recurrent and physics-informed neural networks
Paul Mitalski (PI: Christov/Cushman, ME)