MICHIGAN STATE UNIVERSITY

SCIENCE *at the Edge*

Traditionally distinct scientific disciplines are merging to create new opportunities. Share the excitement and challenge through seminars and discussions with nationally recognized pioneers in Science at the Edge.

Spring Semester 2020

Seminars are on Fridays at 11:30 a.m. with refreshments served at 11:15 a.m.
1400 Biomedical and Physical Sciences Building (unless noted otherwise)

January 10

Collin Stultz, Department of Electrical Engineering & Computer Science, Massachusetts Institute of Technology
Computational Biophysics and Machine Learning in Medicine: Applications from the Molecule to the Patient

January 24

Jennifer Mulle, Human Genetics, School of Medicine, Emory University
Chromosome, Interrupted: The 3q29 Interval and Risk for Neuropsychiatric Illness

February 7

Caitlin Davis, Department of Chemistry, Yale University
Protein Dynamics: Connecting in Vitro, in Cell, and in Vivo

February 28

Huan Lei, Department of Computational Mathematics, Science and Engineering, Michigan State University
Data-Driven Modeling of Multiscale Multiphysics Systems Beyond Equilibrium

March 13

Yuri Lyubchenko, Department of Pharmaceutical Sciences, University of Nebraska Medical Center
Molecular Mechanisms of Proteins Self-Assembly in Aggregates by the On-Surface Catalysis Pathway

March 20

Hoi Sung Chung, National Institutes of Health
Single molecule FRET Studies of Binding and Oligomerization of Disordered Proteins

March 27

Patrick Alford, Department of Biomedical Engineering, University of Minnesota
Single-Cell Smooth Muscle Mechanics: Toward Unlocking the Mechanisms of Vascular Mechanobiology

April 3

Brian Kelch, Department of Biochemistry and Molecular Pharmacology, University of Massachusetts Medical School
Biological Micromachines: Motors, Rings, Springs and Things

April 10

Emilia Huerta-Sanchez, Department of Ecology and Evolutionary Biology, Brown University
On the Number and the Timing of Introgression Events in Humans

April 17

Katherine Y*anhang* Zhang, Department of Biomedical Engineering, Boston University
Structural and Mechanical Inhomogeneities in Arterial Extracellular Matrix: Implication for Physiology and Disease

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Organizers
Lisa Lapidus (lapidus@msu.edu) & Ruby Ghosh (ghosh@msu.edu)
Interdisciplinary Physics

Alexandra Zevalkink (alexzev@msu.edu), & Sara Roccabianca (roccabis@msu.edu)
Engineering

Alex Dickson (alexrd@msu.edu), & George Mias (gmias@msu.edu)
Quantitative Biology/Gene Expression in Development & Disease