

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.



MICHIGAN STATE
UNIVERSITY

Fall Semester 2012

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)

September 7 - Interdisciplinary Physics Seminar

Yukiko Yamashita, Center for Stem Cell Biology, Life Sciences Institute, University of Michigan
Asymmetric Stem Cell Division in Drosophila

September 14 - Interdisciplinary Physics Seminar

Paul Corkum, JASLAB, University of Ottawa and National Research Council of Canada
Catching Electrons with Light

September 21 - Quantitative Biology/Gene Expression in Development and Disease Seminar

Richard Scheuermann, J. Craig Venter Institute, San Diego, California
Comparative Genomics Analysis to Determine the Origin of Pandemic Influenza Viruses

September 28 - Interdisciplinary Physics Seminar

David Luzzi, Northeastern University
Nanotechnology: From Research Lab to Commercialization

October 5 - Interdisciplinary Physics Seminar

Stephen Hsu, Department of Physics, Michigan State University
Genetic Architecture of Intelligence

October 12 - Quantitative Biology/Gene Expression in Development & Disease Seminar

Heather Allen, Departments of Chemistry and Biochemistry, The Ohio State University
Ion, Lipids, and Water Organization at Air-Aqueous Interfaces: From Atmospheric Chemistry of Aerosols to Biophysics of Lung Surfactant

October 19 - Quantitative Biology/Gene Expression in Development & Disease Seminar

Jacob Schaefer, Department of Chemistry, Washington University in St. Louis
Carbon Partitioning in Soybean Leaves by combined $^{11}\text{CO}_2$ and $^{13}\text{CO}_2$ Labeling

October 26 - Interdisciplinary Physics Seminar

Paul Schumacker, Departments of Pediatrics, Medicine, and Cell & Molecular Biology, Northwestern University
Mitochondrial Oxidant Stress/Signaling: Detection, Modification and Consequences in Health and Disease

November 2 - Quantitative Biology/Gene Expression in Development & Disease Seminar

Chris Lee, Department of Biochemistry and Molecular Biology, University of California, Los Angeles
Turning the Scientific Method into Math: Information Metrics for Experiment Proposal and Optimization

November 9 - Engineering Seminar

Jonathan Dordick, Department of Chemical and Biological Engineering, Rensselaer Polytechnic Institute
High-Throughput 3D Cell Culture for Drug Discovery and Human Toxicology

November 16 - Quantitative Biology/Gene Expression in Development & Disease Seminar

David Case, BioMaPS Institute and Department of Chemistry and Chemical Biology, Rutgers University
Bridging the Divide: All Atom Molecular Dynamics Simulations of Biomolecular Crystals

November 30 - Quantitative Biology/Gene Expression in Development & Disease Seminar

Gerry Wright, Department of Biochemistry and Biomedical Sciences, McMaster University
Resisting Resistance. Overcoming Antibiotic Resistance with Small Molecules

December 7 - Interdisciplinary Physics Seminar

Kenneth Suslick, Department of Chemistry, University of Illinois at Urbana-Champaign
Inside a Collapsing Bubble: Sonochemistry and Sonoluminescence

Organizers

Ruby Ghosh (ghosh@pa.msu.edu), Interdisciplinary Physics
Christina Chan (krischan@egr.msu.edu),

Tim Whitehead (taw@msu.edu) & Richard Lunt (rlunt@msu.edu), Engineering
David Arnosti (arnosti@msu.edu) & C. Titus Brown (ctb@msu.edu),
Quantitative Biology/Gene Expression in Development & Disease