

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 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)



MICHIGAN STATE
UNIVERSITY

January 13 – Engineering Seminar

Michael Arnold, Dept. of Materials Science & Engineering, University of Wisconsin-Madison
Structure- and Property-Controlled Nanocarbon Materials for Electronics and Light-Harvesting

January 20 - Quantitative Biology and Modeling Seminar

Julie Mitchell, Departments of Mathematics and Biochemistry, University of Wisconsin-Madison
Knowledge-Based Structural Approaches for Predicting Hot Spots of Protein Binding and Allostery

January 27 - Quantitative Biology and Modeling Seminar

Heping Zhang, Department of Epidemiology and Public Health, Yale University School of Medicine
Genetic Studies of Comorbidity

February 3 - Quantitative Biology and Modeling Seminar

Shuangge Ma, School of Public Health, Yale University
Integrative Analysis of Cancer Genomic Data

February 10 - Quantitative Biology and Modeling Seminar

Anne Condon, Department of Computer Science, University of British Columbia
Some How's and Why's of Programming DNA Molecules

February 17 – Engineering Seminar

Liang-shi Li, Department of Chemistry, Indiana University
Colloidal Graphene Quantum Dots: A New Type of Carbon Materials Toward Energy Applications

February 24 - Quantitative Biology and Modeling Seminar

Michael Kosorok, National Institute of Statistical Sciences, University of North Carolina-Chapel Hill
Personalized Medicine and Artificial Intelligence

March 2 - Quantitative Biology and Modeling Seminar

Ayyalusamy Ramamoorthy, Department of Chemistry and Biophysics, University of Michigan
Dynamical Structures of Membrane Proteins by NMR Spectroscopy

March 16 - Interdisciplinary Physics Seminar

Doraiswami Ramkrishna, School of Chemical Engineering, Purdue University
Dynamic Modeling of Metabolism. The Cybernetic Approach

March 23 - Interdisciplinary Physics Seminar

Ramon Gonzalez, Department of Chemical and Biomolecular Engineering, Rice University
Realizing the Promise of Engineered Metabolism

March 30 - Quantitative Biology and Modeling Seminar

Chuan He, Department of Chemistry, University of Chicago
Reversible Modifications on DNA and RNA Impacts Cellular Regulation

April 6 - Interdisciplinary Physics Seminar

Victor Karpov, Department of Physics and Astronomy, The University of Toledo
Physics of Thin Film Photovoltaics

April 13 - Quantitative Biology and Modeling Seminar

Boris Shraiman, Kavli Institute for Theoretical Physics, University of California-Santa Barbara
Evolutionary Dynamics in Genetically Diverse Populations

April 20 - Quantitative Biology and Modeling Seminar

Ehab Abouheif, Department of Chemical Engineering, McGill University
The Interactions between Genes and Environment in Ants

April 27 - Quantitative Biology and Modeling Seminar

R. Craig Albertson, Department of Biology, University of Massachusetts-Amherst
Toward the Origin of Cichlid Craniofacial Diversity: Patterns, Processes and Mechanisms

Organizers

Ruby Ghosh (ghosh@pa.msu.edu) & Jeffrey Schenker (Jeffrey@math.msu.edu),
Interdisciplinary Physics

Christina Chan (krischan@egr.msu.edu), Engineering

C. Titus Brown (ctb@msu.edu) & David Arnosti (arnosti@msu.edu),
Quantitative Biology/Gene Expression in Development & Disease