

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

Spring Semester 2010

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 15 - Quantitative Biology and Modeling Seminar

Claus Wilke, Dept. of Integrative Biology, University of Texas at Austin
Selection for Accurate and Efficient Gene Expression

January 22 - Interdisciplinary Physics Seminar

Steven Cundiff, JILA/ University of Colorado-Boulder
Optical Two-Dimensional Spectroscopy of Semiconductor Nanostructures

January 29 – Engineering Seminar

Kelvin Lee, Dept. of Chemical Engineering, University of Delaware
Enhancing Protein Secretion: the Old, the New, and the Unexpected

February 12 - Interdisciplinary Physics Seminar

Sunney Xie, Dept. of Chemistry & Chemical Biology, Harvard University
Life at the Single Molecule Level

February 19 – Engineering Seminar

Scott Banta, Department of Chemical Engineering, Columbia University
Protein Engineering for Biosensors and Biofuel Cells

March 5 - Interdisciplinary Physics Seminar

Angel Garcia, Dept. of Physics, Applied Physics, and Astronomy,
Rensselaer Polytechnic Institute
Simulations of the Folding/Unfolding Thermodynamics of Proteins

March 19 - Quantitative Biology and Modeling Seminar

Martha Bulyk, Health Sciences & Technology, Harvard Medical School
Transcription Factor-DNA Interactions: cis Regulatory Codes in the Genome

March 26 - Quantitative Biology and Modeling Seminar

Tamar Schlick, Dept. of Chemistry & Courant Institute of Mathematical Sciences,
New York University
Adventures in Computational Biology

April 2 - Quantitative Biology and Modeling Seminar

Karl Broman, Dept. of Biostatistics & Medical Informatics, University of Wisconsin-Madison
Mapping QTL to a Phylogenetic Tree

April 9 – Engineering Seminar

Kyongbum Lee, Department of Chemical and Biological Engineering,
Tufts Univ., Medford, MA
Metabolic Engineering of Cellular Energy (In)efficiency

April 16 – Engineering Seminar

John Pierce, DuPont Applied BioSciences Technology, Delaware
Theory and Empiricism in Metabolic Engineering for Renewable Fuels and Chemicals

April 23 - Interdisciplinary Physics Seminar

Tatyana Sharpee, Computational Neurobiology Laboratory,
Salk Institute for Biological Studies
Maximally Informative Input/Output Functions in Biological Networks

April 30 - Interdisciplinary Physics Seminar

Carl Frieden, Dept. of Biochemistry & Molecular Biophysics, Washington Univ.
Differentiating the Isoforms of the ApolipoproteinE Family of Proteins

May 7 - Interdisciplinary Physics Seminar

Devarajan Thirumalai, Institute of Physical Science & Technology,
Univ. of Maryland
Global Simplicity and Hidden Complexity in the Functions of Biological Machines

May 14 - Quantitative Biology and Modeling Seminar

Raymond Carroll, Department of Statistics, Texas A&M University
Robust Powerful Methods for Understanding Gene-Gene and Gene-Environment Interactions

May 21 - Interdisciplinary Physics Seminar

Jose Onuchic, Department of Physics, University of California at San Diego
The Energy Landscape for Folding and Molecular Machines

May 28 - Quantitative Biology and Modeling Seminar

Ronald Johnson, Department of Biochemistry & Molecular Biology,
Brody School of Medicine, East Carolina University, NC
Rapid Kinetic Analysis of Transcription Elongation as Catalyzed by RNA Polymerase

Organizers

Lisa Lapidus (lapidus@pa.msu.edu) & Jeffrey Schenker (Jeffrey@math.msu.edu),
Interdisciplinary Physics

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

David Arnosti (arnosti@msu.edu) & David Weliky (weliky@chemistry.msu.edu),
Quantitative Biology/Gene Expression in Development & Disease

