

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.

Fall Semester 2008

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)

August 29 - Quantitative Biology/Gene Expression in Development and Disease Seminar
Dongping Zhong, Department of Physics, Chemistry, and Biochemistry,
The Ohio State University
Ultrafast Enzymatic Catalysis: DNA Repair by Photolyase

September 5 - Quantitative Biology/Gene Expression in Development and Disease Seminar
Cheng Li, Harvard School of Public Health, Dana-Farber Cancer Institute
Genomic Alteration Analysis Using SNP Microarrays

September 12 - Quantitative Biology/Gene Expression in Development and Disease Seminar
Klaus Schulten, Department of Physics, University of Illinois at Urbana-Champaign
*Molecular Dynamics Simulations Beyond Microsecond, Beyond Million Atoms,
Beyond Present Force Fields*

September 19 - Interdisciplinary Physics Seminar
Sidney Redner, Department of Physics, Boston University
The Best, the Hottest, and the Luckiest: A Statistical Tale of Extremes

October 3 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Audrey Gasch, Laboratory of Genetics and Genome Center of Wisconsin,
University of Wisconsin-Madison
Functional Genomics of Yeast Stress Defense

October 10 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Gary Drobny, Departments of Chemistry and Physics, University of Washington
Solid State NMR Studies of Proteins at Biomaterial Interfaces

October 17 - Interdisciplinary Physics Seminar
Kevin Plaxco, Department of Chemistry and Biochemistry,
University of California-Santa Barbara
Better Living through Biosensors

October 31 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Yan Cui, Department of Molecular Sciences, University of Tennessee
*Gene Expression Trait: A Glimpse into the Black Box of Genotype-
Phenotype Mapping*

November 7 - Interdisciplinary Physics Seminar
Kenneth McLaughlin, Department of Mathematics, University of Arizona
*Crazy Limits: Random Matrices, Random Tilings, the Asymptotic
Analysis that Relates Them*

November 14 – Engineering Seminar
Lonnie Shea, Department of Chemical and Biological Engineering,
Northwestern University
Gene Delivery for Regenerative Medicine

November 21 - Interdisciplinary Physics Seminar
Yannis Kevrekidis, Department of Chemical Engineering, Princeton University
Equation-Free Modeling and Computation for Complex Systems

December 5 – Engineering Seminar
Stanislav Shvartsman, Department of Chemical Engineering, Princeton University
Paint by Numbers: Quantitative Biology of Pattern Formation in Embryos

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

