



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 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)

January 18 - Interdisciplinary Physics Seminar

Jeff Schenker, Department of Mathematics, Michigan State University
The Mathematics of Currents Occuring in the Quantum Hall Effect

January 25 – Engineering Seminar

John Brady, Dept. of Chemical Engineering, California Institute of Technology
The Osmotic Motor

February 1 - Quantitative Biology/Gene Expression in Development & Disease Sem.

Ian Dworkin, Department of Zoology, Michigan State University
Using Weak Perturbations to Probe Gene Networks and Phenotypic Variation

February 8 - Interdisciplinary Physics Seminar

Alan Hunt, Department of Biomedical Engineering, University of Michigan
Breaking the Diffraction Limit: Committing an Optical Misdemeanor for Microfluidics and Cell Biology

February 22 - Quantitative Biology/Gene Expression in Development & Disease Sem.

Robin Buell, Department of Plant Biology, Michigan State University
Insights into the Rice Genome

February 29 - Interdisciplinary Physics Seminar

Harry Dorn, Department of Chemistry, Virginia Tech
Fullerene-Based Nanomaterials for Biomedical and Information Technology Applications

March 21 - Quantitative Biology/Gene Expression in Development & Disease Sem.

Jianguo Liu, Department of Fish & Wildlife, Michigan State University
Complexity of Coupled Human and Natural Systems

March 28 - Interdisciplinary Physics Seminar

Shaul Mukamel, Department of Chemistry, University of California, Irvine
Coherent Nonlinear Optical Spectroscopy of Proteins: Femtosecond Analogue of Multidimensional NMR

April 4 – Engineering Seminar

Ravi Kane, Department of Chemical and Biological Engineering, Rensselaer Polytechnic Institute
The Design of Nanoscale Therapeutics and Nanostructured Materials

April 11 – Engineering Seminar

George Georgiou, Dept. of Chemical Eng., University of Texas at Austin
Engineering the Next Generation of Therapeutic Proteins

April 18 - Interdisciplinary Physics Seminar

Olgica Bakajin, Department of Chemistry & Materials Science, Lawrence Livermore National Laboratory
Carbon Nanotube Nanofluidics

April 25 – Engineering Seminar

Russ Composto, Dept. of Materials Science and Eng., Univ. Pennsylvania
Dispersion and Self-Assembly of Nanospheres and Nanorods in Polymer Nanocomposite Films

Organizers

Carlo Piermarocchi (carlo@pa.msu.edu) & Lisa Lapidus (lapidus@pa.msu.edu), Dept. of Physics & Astronomy
Christina Chan (krischan@egr.msu.edu) & Michael Mackay (mackay@msu.edu),
Department of Chemical Engineering & Materials Science
Michael Feig (feig@msu.edu), Marianne Huebner (huebner@msu.edu), and Charles Ofria (ofria@msu.edu),
and David Arnosti (arnosti@msu.edu), Quantitative Biology/Gene Expression in Development & Disease