

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 2009

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 11 - Quantitative Biology/Gene Expression in Development and Disease Seminar
Daniel Forger, Department of Mathematics, University of Michigan
Co-ordinating Biological Timekeeping in Mammals: Noise and Silence Prevail
- September 18 - Quantitative Biology/Gene Expression in Development and Disease Seminar
James Chou, Department of Biological Chemistry & Molecular Pharmacology,
Harvard University
How do Influenza H+ Channels Work?
- September 25 - Interdisciplinary Physics Seminar
Eleonora Zakharian, Department of Pharmacology & Physiology,
University of Medicine & Denistry of New Jersey
TRP Channels in Supramolecular Complexes with Inorganic Polyphosphate and Polyhydroxybutyrate
- October 2 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Joan-Emma Shea, Department of Chemistry and Biochemistry,
University of California at Santa Barbara
Simulations of Protein Aggregation into Amyloid Fibrils
- October 9 – Engineering Seminar
Liming Dai, Department of Materials Science,
University of Dayton
*Optoelectronic Conjugated Macromolecules and Aligned Carbon Nanotubes:
From Materials Syntheses to Device Applications*
- October 16 - Interdisciplinary Physics Seminar
Jean Bellissard, Department of Mathematics and Physics, Georgia Tech
Functional Topological Aspects in the Theory of Aperiodic Solids and Tiling Spaces
- October 23 – Engineering Seminar
Mark Tuszynski, Department of Neurosciences, University of California-San Diego
Bioengineered Guidance Channels in the Injured Spinal Cord
- November 6 - Quantitative Biology/Gene Expression in Development & Disease Seminar
David Umulis, Department of Agricultural & Biological Engineering,
Purdue University
Organism-scale Modeling of Early Drosophila Patterning Via Bone Morphogenetic Proteins
- November 13 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Christopher D. Lima, Structural Biology, Sloan-Kettering Institute
Structural Insights to Post-Translation Modification by SUMO, a Ubiquitin-like Protein
- November 20 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Greg Gibson, The School of Biological Sciences, University of Queensland
Geographical Genomics of Human Gene Expression Variation
- December 4 - Quantitative Biology/Gene Expression in Development & Disease Seminar
Curtis Callan, Department of Physics, Princeton University
*Is there a Theoretical Physics of Life? Case Studies in the Search for
Mathematical Principles in the Data of Modern Biology*
- December 11 – Engineering Seminar
S. Patrick Walton, Department of Chemical Engineering and Materials Science,
Michigan State University
Biomolecular Engineering of siRNA Therapeutics

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



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