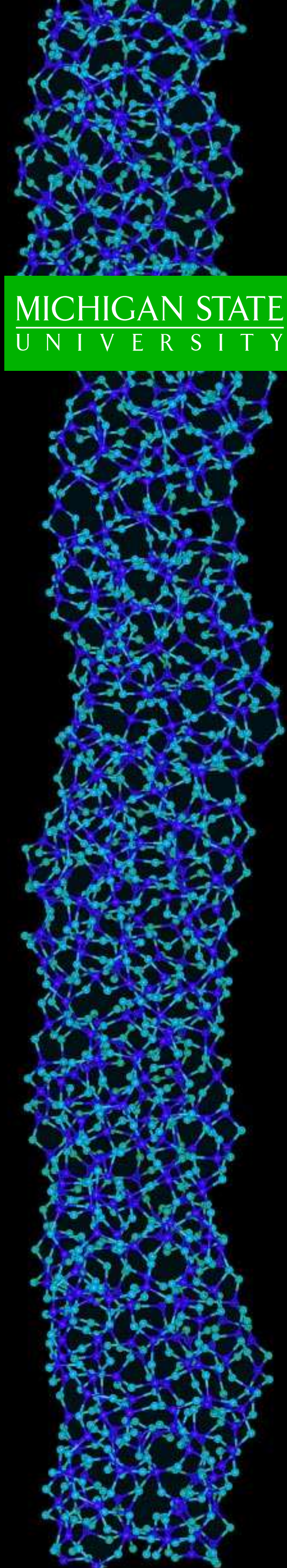

MICHIGAN STATE UNIVERSITY

SCIENCE at the Edge

Traditionally distinct science disciplines are merging to create new opportunities. Share the excitement and challenge each week through seminars and discussions with nationally recognized pioneers in science at the edge.

FALL SEMESTER 2001 *MICHIGAN STATE UNIVERSITY*

Seminars Begin at 11:30 a.m.,
Refreshments Served at 11:15 a.m.

Friday, September 7 - Room 224 Physics-Astronomy Building
Juyang Weng, Michigan State University
Autonomous Mental Development by Robots and Animals

Friday, September 21 – Room 1208 Engineering Building
Erdogan Gulari, University of Michigan
From Idea to Commercialization Development of a New Biochip
(Note: This seminar starts at 11:00 a.m.)

Friday, September 28 - Room 224 Physics-Astronomy Building
Peter Bates, Michigan State University
Mathematical Modeling of Phase Transitions in Materials

Friday, October 5 – Room 1208 Engineering Building
Susan Sinnott, North Carolina State University
Nano-Fluidics and Mechanical Properties of Carbon Nanotube-Based Membranes and New Materials

Friday, October 12 - Room 224 Physics-Astronomy Building
Boris Shklovskii, University of Minnesota
Low Temperature Physics at Room Termperature in Water: Charge Inversion in Chemistry, Biology and Gene Therapy

Friday, October 19 - Room 208 Biochemistry Building
Joe Landman, MSC.Software, Supercomputing
Scalability Matters - Why We Need to Make Bioinformatics Programs Scalable, and Results from Work on Various Programs

Friday, October 26 - Room 208 Biochemistry Building
Gerhard Hummer, National Institute of Health
Computational Analysis of Water and Proton Movements in Proteins

Friday, November 2 – Room 1208 Engineering Building
Ramani Narayan, Michigan State University
Sustainable Bio-Based Materials

Friday, November 9 - Room 224 Physics-Astronomy Building
Mark Robbins, Johns Hopkins University
Where Does Friction Come From?

Friday, November 16 – Room 1208 Engineering Building
Christine Schmidt, University of Texas at Austin
Tissue Engineering Strategies for Nerve Regeneration

Friday, November 30 - Room 208 Biochemistry Building
Alexei Stuchebrukhov, University of California-Davis
Biological Charge Transfer

Friday, December 7 - Room 224 Physics-Astronomy Building
Geoffrey West, Los Alamos National Laboratory
The Tree of Life: Universal Scaling Laws in Biology from Molecules and Cells to Whales and Ecosystems

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Seminar Organizers :

Campus Theory Seminar: — **Room 224 Physics-Astronomy Building**
M. F. Thorpe, Physics & Astronomy — thorpe@pa.msu.edu

Engineering Interdisciplinary Seminar: — **Room 1208 Engineering Building**
Virginia Ayres, Electrical and Computer Engineering — ayresv@egr.msu.edu
John McGrath, Mechanical Engineering — mcgrath@msu.edu

Center for Biological Modeling Seminar: — **Room 208 Biochemistry Building**
Shelagh Ferguson-Miller, Biochemistry & Molecular Biology — fergus20@msu.edu
Leslie Kuhn, Biochemistry and Molecular Biology — kuhn@agua.bch.msu.edu

Seminar details, including links to speaker homepages, are at:
http://www.pa.msu.edu/seminars/ctss/ and **http://biomodel.msu.edu/**