

# Workshop on Undergraduate Research in Computational Mathematics

April 5, 2008

George Mason University

- 9:40-10:40 Keynote lecture: K. Mischaikow, Rutgers University,  
Rigorous Numerics via Algebraic Topology
- 11:10-11:35 D. Amarasinghe / S. Hendrickson, GMU  
Hemodynamic Analysis of a Cerebral Aneurysm
- 11:35-12:00 A. Kercher, GMU  
Self Organization in a Model of Thin Electric Current Sheets
- 12:00-12:25 T. Crowder, College of William and Mary  
A Study of Genetic Code by Combinatorics and Matrix Theory
- 2:00-2:25 A. Koufos / F. Iacoletti, GMU  
An Evaluation of the Rigid Band Model  
and the Virtual Crystal Approximation in the 4d Transition Metals
- 2:25-2:50 K. Archer, College of William and Mary  
Computing the Dimension of Strange Attractors
- 2:50-3:15 B. Paljug, College of William and Mary  
Exploring Topological Entropy in Symbolic Dynamical Systems
- 4:00-4:25 J. Price / H. Edrees, GMU  
Phase Separation Dynamics in Multi-component Metal Alloys
- 4:25-4:50 K. Nong / K. Winter, GMU  
Thin Tear Film Evolution

