

MAA UP Zonal Meeting

Michigan Technological University October 2-3, 2009

Friday, October 2

Location: Fisher 101

- 3:00 p.m.** Welcome - Mark Gockenbach, Michigan Technological University
- 3:05** Robert Krasny, University of Michigan
Vortex Sheet Roll-Up: A Problem in Fluid Dynamics Involving Math, Physics, and Computing
- 4:00** Adan Niu, Michigan Technological University
A Novel Method to Detect Gene-Gene Interactions in Structured Populations: MDR-SP
- 4:25** Guangjin (Gloria) Zhong, Michigan Technological University
Using multivariate time series causality model to analyze fMRI data
- 4:50** Shurong (Rebecca) Fang, Michigan Technological University
Two-locus Analysis for Genome-wide Association Studies
- 5:15** Mike Gilpin, Michigan Technological University
Face-by-Face Transversals on Graphs
- 6:00** Dinner at the University Residence

Saturday, October 3

Location: Fisher 101

- 8:30 a.m.** Darin Stephenson, Hope College
Examples in Noncommutative Geometry: Approaches Aimed at Involving Undergraduate Students in Mathematical Research
- 9:30** Bao Truong, Northern Michigan University
Necessary Conditions for Multiobjective Optimization Problems with a Preference
- 9:55** Don Faust, Northern Michigan University
Are beliefs ever necessary ... in mathematics ... in science ... indeed in the broader arena of general human knowledge: an Explorationist perspective
- 10:20** John Asplund, Michigan Technological University
Edge Coloring with Designs with $k=5$
- 10:45** Juergen Bierbrauer, Michigan Technological University
Commutative semifields

- 11:10** J.D. Phillips, Northern Michigan University
A few hard problems from loop theory...but not for the computer!
- 11:35** David Clark, Michigan Technological University
Designs, Geometries, and Hamada's Conjecture