

## MUMC, October 30, 2004

**9:00 AM** (near Dow 102). Check-in, pick up your folder and name tags, enjoy the continental breakfast.

**9:30-11:30 AM.** There will be three parallel sessions of four student talks, graduate school presentations and presentations on applications of mathematics. (Talks will be 20 minutes with 5 minutes for questions)

Here are the talks in the morning session:

**9:30, Dow 136,** Charles MacCluer (MSU), Careers in Industrial Mathematics

**9:30, Dow 170,** William Green (Albion College), N Men, A Monkey and Some Coconuts

**9:30, Dow 179,** Nathaniel Burch (GVSU), Exploring the Lanczos Derivative

**10:00, Dow 136,** Jack Kalbfleisch (U. Michigan), The Graduate Program in Biostatistics

**10:00, Dow 170,** Andrew Wells (Hope College), Order of the Group of Units in the Quaternions Modulo  $n$

**10:00, Dow 179,** Thomas Kennedy (GVSU), Modeling Baseball as a Markov Chain

**10:30, Dow 136,** Katrina Piatek-Jimenez (CMU), A Survey of Graduate Programs in Mathematics Education

**10:30, Dow 170,** Kristina Lund (GVSU), The Geometry of  $H\{R\}^n$

**10:30, Dow 179,** Daniela Banu (Hope College), Analysis of the Conditioning Effect of Future Polynomial Regularization

**11:00, Dow 136,** Aboufadel, Boelkins (GVSU), et. al., The Grand Valley State University REU

**11:00, Dow 170,** Chelsea Walton (MSU), Bases of Spaces of Modular Forms with Weight  $3/2$

**11:00, Dow 179,** Jonathan Oaks (Ferris State), Optimizing the World, One Human at a Time

**11:30-12:30, Dow 171,** Jennifer Quinn, a faculty member at Occidental College in California, "Proving What Counts by Counting to Prove."

**12:30-1:30** Box lunch

**1:30-3:45 PM.** There will be four parallel sessions of four student talks. (Talks will be 20 minutes with 5 minutes for questions. We will have a brief break at 3 PM for refreshments.)

Here are the talks in the afternoon session:

**1:30, Dow 107,** Mohan Shrikhande (CMU), Graduate Program in Mathematics at Central Michigan University

**1:30, Dow 136,** Mohammad Rammaha (U. Nebraska), The Graduate Program in Mathematics at the University of Nebraska-Lincoln

**1:30, Dow 170,** Kelly VanOchten (CMU), Optimal Pebbling Number of a Graph

**1:30, Dow 179,** Andrew Craker (U. Notre Dame) & Erin Wicker (Alma College), Piecewise-linear Spirals

**2:00 Dow 107**, Lisa DeMeyer (CMU), Research Experiences for Undergraduates at Central Michigan University

**2:00, Dow 136**, Jianping Dong (MTU), The Graduate Program in the Department of Mathematical Sciences at Michigan Technological University

**2:00, Dow 170**, Jessica Muntz (CMU), The  $(p,k)$  Pebbling Number of Diameter 3 Graphs

**2:00, Dow 179**, Jennifer Bakisae (John Carroll), Optimization and Regional Cost Analysis for Wind/Diesel Hybrid Systems in Remote Alaska

**2:30, Dow 107**, Brandi Holly and Ted Reinbold (Auto-Owners Insurance), Actuarial Careers at Auto-Owners

**2:30, Dow 136**, Matt Benander & Erin Militzer (U. Kentucky), The University of Kentucky Graduate School Program

**2:30, Dow 170**, Steven Klee (Valparaiso U.), Tight Subdesigns of the Higman-Sims Design

**2:30, Dow 179**, Michael Cortez & Michael Nelsen (Hope College), A Mathematical Model of a Tri-Trophic Interactions

**3:00** Refreshment break

**3:15, Dow 107**, Brandi Holly and Ted Reinbold (Auto-Owners Insurance), An informal discussion with students interested in Actuarial Science

**3:15, Dow 136**, Michael Farmer (Oakland U.), Be safe: use LaTeX

**3:15, Dow 170**, Aaron Satterle (CMU), A Demonstration of the Countability of the Rationals

**3:15, Dow 179**, Tiffany Prest (MSU), Genes That Are, And Are Not

**3:45-5:00**, Dow 171, A mathematical game contest: Mathematical Fights. (Students will compete in teams of up to 6 students.)

**5:00** End of conference.

#### **TECHNOLOGY AVAILABLE:**

Below is a report on the technology available in the various Dow classrooms

**DOW 102 and DOW 107** - These two rooms both have data projectors, visualizers, VCR/DVD combo units, slide projectors. The data projectors have cables to hook to a laptop, but there are no computers.

**DOW 136** has a data projector, visualizer and a VCR. (The data projector has a cable to hook to a laptop, but there is NOT a computer.)

**DOW 170** has a data projector, visualizer, VCR, laser disc player, slide projector and a computer. (The computer runs Windows, has internet access and Microsoft Office.)

**DOW 171** has a data projector, visualizer, VCR, laser disc player, slide projector and a wireless microphone. (The data projector has a cable to hook to a laptop, but there is not a computer.)

**DOW 175** has a data projector, visualizer, VCR, DVD player, laser disc player, slide projector and a wireless microphone. The data projector has a cable to hook to a laptop, but there is not a computer. (At this point, nothing is scheduled in DOW 175, but it is available in an emergency.)

**DOW 179** has a data projector, visualizer, VCR, slide projector and a computer. (The computer runs Windows, has internet access and Microsoft Office.)