Texas A&M University Mathematics

REU/MCTP/UMB

STUDENT MINI-CONFERENCE

July 28-29, 2008

158 Blocker Hall

[Four Sessions: Monday afternoon, Monday evening,
Tuesday morning, and Tuesday afternoon]

Monday July 28 (afternoon)

12:30- 12:50 ===refreshments ===

12:50-1:00 Opening words from Al Boggess and Sue Geller

1:00- 1:20 "A Three-Species Predator-Prey Model Incorporating Trophic Transfer of Polychlorinated Biphenyls (PCBs) in the Great Lakes System" (Annchen Knodt & Cara Montgomery)

1:30- 1:50 "Traveling Salesman and DNA: Using Mathematica to solve problems in Graph Theory" (Theodore W. Swang II)

2:00- 2:20 "On Refinable Functions" (Ruth Lee, John Meuser and Paul Weber)

2:30- 2:50 "Simulating Dispersal Kernels with Diffusion and Nonhomogeneous Convection" (Aaron Peterson)

2:55 - 3:20 =======25 minute refreshment break==========

3:20- 3:40 " Controlling tuberculosis: Two Modeling Approaches" (Andrew Basinski & JohnHolodnak)

3:50- 4:10 "Stochastic Modeling of Vaccine-Derived Poliomyelitis" (Youjin Lee)

4:20- 4:40 "Modeling Gene Drive Systems" (Sean Johnson & James Wratten)

4:50- 5:10 "Modeling of Influenza Using Fuzzy Logic" (Ananth Ram)

5:15- 6:00 ==dinner buffet for participants, mentors, staff & audience ==
[catered by Jin's Asian Cafe]

6:00- 6:20 "Tight Frames and Five Dimensional Soda Straws" (Travis Andrews and John Meuser)

6:30- 6:50 "Comparing Two Simple Algorithms for Solving Sparse Univariate Polynomials Over C" (Justin Frerich)

7:00- 7:20 "Foot and Mouth Disease in Texas Deer" (Bryan Fellman)

7:25 ======desserts and refreshments========

Tuesday July 29 (morning)

8:30-9:00 ====breakfast breads, coffee, tea=====

9:00- 9:20 "A Multi-Vector Rabies Model" (Matt Cefalu & Danielle Schroeder)

9:30- 9:50 "Pre-Reu Talk" -- title to be announced
(Ana Burgers, Laurie de Castro, Molly Mack, Kati McConville and Katy Nowak)

10:00-10:20 "Pre-Reu Talk" -- title to be announced
(Brittany Baker, Madelyne Harris, Dania Morales, Ben Rothschild and Caree Wheeler

10:25-10:50 =========25 minute refreshment break========

10:50- 11:10 "It's a Coyote Eat Deer Feed Tick World: A Deterministic Model of Predator-Prey-Parasite Interaction in the Northeastern United States"
(Orianna DeMasi & Kathy Li)

11:20- 11:40 "Pre-Reu Talk" -- title to be announced
(Wilton Brown, Jeffery Gowdy, Adriana Riggs, Sage Schissel and Emily Trigg)

11:50- 12:10 "Pre-Reu Talk" -- title to be announced
(Sona Akopian, Stan Antol, Hannah Fouasnon and Patrick Spencer)

12:15- 1:00 ==**LUNCH (pizza!!)** for participants, mentors, staff & audience==

Tuesday July 29 (afternoon)

1:00- 1:20 "Riesz's Pieces" (Curtis Porter and Travis Thompson)

1:30- 1:50 "Johne's Disease in Dairy Cows" (Jeff Towles)

2:00- 2:20 "Analysis of Predator & Prey Models with Multiple Patches under Different Migratory Assumptions" (Bernardo Cunha & Chrissy Donovan)

2:25- 3:25 ==(60 min Graduate School discussion and refreshment break)==
[Math 2:25- 2:55 ; Stat 2:55-3:25]

3:30-3:50 "Efficient Algorithms for Characterizing the Roots of Sparse Polynomials" (Osbert Bastani and Dimitar Popov)

4:00- 4:20 "Simulating Hurricane Tracks and Strike Probabilities"
(Stephen McFarling & Chris Phillips)

4:30- 4:50 "The Effect of Hurricane Characteristics on Landfall" (Julie Lederer)

5:00-5:20 "Refinable Functions: The Exceptional Case" (Ruth Lee and Paul Weber)

**********MINI-CONFERENCE IS OVER*********