

Texas A&M Mathematics Department
REU/MCTP Summer Research Conference July 24-25, 2013
Blocker 166

Wednesday, July 24, 2013

10:00 - 10:20 Dr. Sue Geller and Dr. Jean Marie Linhart: Opening Remarks

Session 1 Moderator: Dr. Gregory Berkolaiko

10:20 - 10:40 Eleanor Anthony: *Estimating Amoebae of Polynomials Using Archimedean Tropical Varieties*

10:45 - 11:05 Sheridan Grant: *Algorithm for Estimating Amoebae of Polynomials Using Archimedean Tropical Varieties*

15 minute break

11:20 - 11:40 Westin King: *Anderson Delocalization on the Three Dimensional Lattice*

11:45 - 12:05 Amanda Hoisington: *Anderson Delocalization on the Honeycomb*

12:05 - 1:15 Lunch

Session 2 Moderator: Dr. Adam Larios

1:15 - 1:35 M. Edmondson, E. Gaub, C. Lumbra, A. Orr, J. Pereira: *What's the Word? Methods for Spoken Word Recognition*

1:40 - 2:00 R. Joseph Rennie: *Algorithms for Determining the Topology of Positive Zero Sets*

2:05 - 2:25 Erika Refsland: *Bounding the Number of Components of Positive Zero Sets*

Session 3 Moderator: Ms. Kaitlyn Phillipson

2:40 - 3:00 D. Mourad, N. Delphia, J. Oh, J. Fus, R. Ring: *I Whip my Haar Back and Forth: Constructing Algorithms for Letter Identification*

3:05 - 3:25 Kelly O'Bryant: *Atherosclerosis: Modeling the Effects of Functional and Dysfunctional High Density Lipoproteins*

3:30 - 3:50 Kyle Thicke: *Modeling Lesion Growth in Atherosclerosis*

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Thursday July 25

Session 1 Moderator: Dr. J. Maurice Rojas

10:00 - 10:20 A. Emmell, T. Reyes, E. Wheeler, K. Weber, C. Rodriguez: *Harmony: Chord Recognition Using Wavelets*

10:25 - 10:45 Rachael Wood: *Zeros of the Eisenstein Series of Weight 2*

10:50 - 11:10 A. Singhal, J. Venzke, K. Pena, S. Coulson, B. Matys: *Signature Authentication Using Wavelets and Fourier Analysis*

Session 2 Moderator: Dr. Matthew Young

11:25 - 11:45 Danielle Rogers: *Ecosystem Modeling with an Emphasis on Phytoplankton*

11:50 - 12:10 Hailey Bodiford: *Modeling Phytoplankton Growth with Switching Nutrients and in River Systems*

12:10 - 1:15 Lunch

Session 3 Moderator: Dr. Josef Sifuentes

1:15 - 1:35 Sam Dittmer: *The Eisenstein Series and Related Topics in Number Theory*

1:40 - 2:00 Stephanie Seybert: *Nonvanishing of Class Group L -Functions*

2:05 - 2:25 Michael Proulx: *On the History of Mathematics*

Session 4 Moderator: Dr. Riad Masri

2:40 - 3:00 Xian Wu: *From Quantum Chaos to the Riemann Zeta Function*

3:05 - 3:25 Jared Brown: *An Analysis of the Trojan Y-Chromosome Method of Invasive Species Management*

3:30 pm Closing Remarks: Dr. Emil Straube