



Program: Undergraduate Research in Biomathematics

April 21-22, 2006, SUNY Geneseo

Friday, April 21

6:00 – 9:00 PM Dinner at the Big Tree and Discussions on Biomathematics

Saturday, April 22

9:30 Opening remarks. Dr. Kate Conway-Turner, Provost and Vice President of Academic Affairs, SUNY College at Geneseo

Location = South Hall, Room 340

Keynote address: “Agroterrorism in the US: Security Challenge for the 21st Century.” Dr. Alexander Kasiyanov.
Exygnos Research Institute, Omaha, NE

10:45 – 11:00 Refreshments (South 235)

11:00 – 12:00 Student Oral Presentations (South 340)

11:00 FitzGerald, Daniel, and Gregg Hartvigsen. The dynamics of cooperation in small-world networks. SUNY Geneseo.

11:15 Vyacheslav Rykov and Vladimir Ufimtsev. Efficiency of the Two-Stage Group Testing Algorithm for DNA Library Screening. University of Nebraska at Omaha

11:30 Reynolds, Sara. Evolutionary relationships: a mathematical concept? Nazareth College.

11:45 Nimmo, Kayla, and Lauren Wood. Detection of mispaired oligonucleotides using SYBR green I fluorescence. SUNY Geneseo.

12:00 – 1:30 Lunch (South 235)

1:30 - 2:45 Student Presentations (South 340)

1:30 Callear, Christina, and Anthony Macula. Optimization and expansion of an approach to group testing. SUNY Geneseo.

1:45 Kyu, Shuya. Specialized herbivore feeding leads to increased speciation in plants. SUNY Geneseo.

2:00 Darling, Michael, and Dr. Cheri Boyd. Why PAM works: an in-depth look at scoring matrices and algorithms. Nazareth College of Rochester.

2:15 Shkalim, Sara, and Susannah Gal. Solving Satisfiability problems using DNA methylation. SUNY Binghamton.

2:30 Marcus, Daniel, and Gregg Hartvigsen. The spread of influenza through a multi-city small-world network. SUNY Geneseo.

2:45 – 3:00 Refreshments (South 235)

3:00 – 3:30 Guided Tours of Student Posters (South, 3rd Floor Hallway)

3:30 – 4:45 Student Oral Presentations (South 340)

- 3:30 Stallard, Cynthia, and Anthony Macula. Duh³:Doubley Dynamic DNA Programming. SUNY Geneseo.
- 3:45 McCarthy, Andrew, and Gregg Hartvigsen. The effect of network structure on influenza evolution. SUNY Geneseo.
- 4:00 Kremer, Colin, Kate Huggler, Gregg Hartvigsen, and Gary Towsley. Investigating control methods for Dendroctonus rufipennis outbreaks using computer modeling. SUNY Geneseo.
- 4:15 Dresch, Jacqueline. The largest component in subgraphs of circulant-like graphs. SUNY Geneseo.
- 4:30 Hirschbeck, Sarah, Christian Volk, and Feizabadi Mitra Shojania. A biomathematical approach for investigating the evolution of tumors during a course of chemotherapy. Canisius College.

4:45 – 6:00 Dinner and Closing Remarks (South 235)

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**Gregg Hartvigsen, Bailey 4, 585.245.5448, hartvig@geneseo.edu
Tony Macula, South 325D, 585.245.5482, macula@geneseo.edu**