

Morning Sessions (11:00 AM-12:00 PM)

Geometry and Topology

11:00-11:15 *Links and link detection* (Live talk)
Gage Martin (Boston College)

11:20-11:35 *Triangles in non-Euclidean geometries: Elliptic and hyperbolic triangles and their areas* (Live talk)
Julia Starzycka (University of Illinois at Chicago)

11:40-11:55 *Enumeration of Discrete Gradient Vector Fields on Simplicial Complexes* (Live talk)
Andrew Tawfeek (Amherst College)

Analysis

11:00-11:15 *Why Cauchy Completeness and the Least Upper Bound Property are not Logically Equivalent* (Live talk)
Corrie Ingall (University of Connecticut)

11:20-11:35 *Local Properties of Difference Sets* (Live talk)
Anqi Li (MIT)

Graph Theory

11:00-11:15 *The exponential distance matrix of a graph* (Pre-recorded talk)
Kate Lorenzen (Iowa State University)

11:20-11:35 *Adinkra Generating Algorithm and Program* (Live talk)
Felicia Flores (Bard College), Tobias Timofeyev (Bard College)

11:40-11:55 *Tverberg's Theorem, Disks and Hamiltonian Cycles* (Live talk)
Yaqian Tang (Wesleyan University)

Afternoon Sessions (2:00-3:00 PM)

Number Theory and Combinatorics

2:00-2:15 *Generalizing Alder's conjecture on partitions with congruence relations and difference conditions* (Live talk)

Adriana Duncan (Tulane University), Simran Khunger (Carnegie Mellon University)

2:20-2:35 *A New Frobenius Template in a Matrix Ring* (Live talk)

Zhichun Zhang (Swarthmore College)

2:40-2:55 *Chains and Antichains in the Bipartite Cambrian and Tamari Lattices* (Pre-recorded talk)

Rose Silver (Northeastern University)

Math and Biology

2:00-2:15 *Mathematical Analysis of a Model of Blood Flow Through a Channel with Flexible Walls* (Pre-recorded talk)

Madeline Edwards (University of New Hampshire)

2:40-2:55 *CIRCADA-I: Developing an interactive interface for chronobiological researchers* (Pre-recorded talk)

Amaya Smole (Amherst College)

Applied Math

2:00-2:15 *Fluid-Structure Interactions: Stability and error analysis for a loosely coupled scheme* (Live talk)

Rebecca Durst (Brown University)

2:20-2:35 *The Adoption of M-Pesa: A Percolation Approach to Network Goods* (Live talk)

Lisa Reed (Union University), Janet Stefanov (Vanderbilt University), Zerrin Vural (University of Texas at Austin)

Discrete Math, Categories and Algebraic Stats

2:00-2:15 *Posets and Interval Orders: an Approach to Resource Assignment Problems* (Pre-recorded talk)

Aiyana Spear (Wellesley College), Abigail White (Wellesley College)

2:20-2:35 *Operads and Localizations* (Live talk)

Emma Phillips (University of New Hampshire)

2:40-2:55 *The ML degree of n -cycle models* (Pre-recorded talk)

Xinyang Hu (University of Wisconsin)