

## AMCS-MATH Day, Saturday September 7, 2024, room 110 MLH

- 8:15am (3 MLH, Muhly lounge) Breakfast pastries from Deluxe Bakery and coffee from Cortado
- 9:00am Welcoming remarks
- 9:15am (110 MLH) Garrett Mason : *Asymptotic Reduction of Competitive Inhibitor Stimulation Model*
- 9:15am (118 MLH) George Clare Kennedy : *Using Topological Data Analysis for Clustering Aptamers by Site Affinity*
- 9:35am (110 MLH) Yuan Yao : *The Nonconforming Finite Element Method for a Stokes Variational Inequality*
- 9:35am (118 MLH) Matthew Barber : *Category Theory via Legendrian Knots*
- 9:55am (110 MLH) Ziqing Lu : *Optimal cost-constrained adversarial attacks for multiple agent systems*
- 9:55am (118 MLH) Shashank P. Singh : *Understanding Hopf Algebra Representations through Quivers*
- 10:15am Rob Falgout (LLNL) : *Multigrid Methods in Space and Time for Extreme-scale Scientific Computing*
- 11:00am Yao Yao (via zoom) : *Optimization for Fairness-aware Machine Learning*
- 11:20am Jessa Rhea : *Disaster Response on a Network with Stochastic Demand and Uncertain Edge Accessibility*
- 11:40am Joe Starr : *The Tanglenomicon: Tabulation of two string tangles*
- 12:00pm (3 MLH, Muhly lounge) Lunch from robertasitaliandelicacies.com
- 1:30pm Natalie Randall : *Distributionally Robust Generator Scheduling for Power Grids with Storage and Wind Energy Uncertainty*
- 1:50pm Jose Beltran Lizarazo : *Compensated compactness and applications to hyperbolic conservation laws*
- 2:10pm Elise Askelsen : *Actions of Hopf-Ore Extensions on Path Algebras*
- 2:30pm Ying Liu : *The Emergence of Spatiotemporal Patterns in Dynamical Systems*
- 2:50pm Jinyang Wu : *Regularity of viscosity solutions of the sigma-k-Yamabe type problem for  $k > n/2$*
- 3:10pm Quentin Chediak : *Starting Approximations for Partitioned ODEs*
- 3:30pm Kerry Tarrant : *Coupled pump-leak equation system for modeling of ion & cell volume stabilization*
- 3:50pm Ibrahim Emirahmetoglu : *Behavioral Models in Game Theory*
- 4:10pm Casey Stone : *Existence and Stability of Traveling Wave Solutions in Systems of PDEs*
- 4:30pm Niki Amaraweera Kalutotage : *Relative solidity results and their applications to computations of  $II_1$  factors invariants*
- 4:50pm Concluding remarks