

SCALA 2017: SCIENTIFIC COMPUTING AROUND LOUISIANA

STANLEY THOMAS HALL (Building 10)
Room 316

Friday, March 17

1:10 – 1:55	Tammy Kolda (Sandia National Labs, Livermore, CA) Tensor Decompositions: A Mathematical Tool for Data Analysis
2:00 – 2:15	Vincent Martinez (Mathematics, Tulane University) Analytical studies in a data assimilation algorithm: higher-order synchronization, surface-data, and time-averaged observables
2:15 – 2:45	Coffee Break
2:45 – 3:00	Sijing Liu (Mathematics, LSU) Multigrid Methods for an Optimal Control Problem
3:00 – 3:15	Renee Dale (Biological Sciences, LSU) Posterior Estimates of Dynamic Constants in HIV Transmission Modeling
3:15 – 3:30	Zhuolin Qu (Mathematics, Tulane University) Modeling the Mitigation of Dengue Fever, Chikungunya, and Zika and by Infecting Mosquitoes with Wolbachia Bacteria
3:30 – 3:45	Danielle King (Mathematics, Trinity University, San Antonio, TX) Modeling E. coli Chemotaxis
3:45 – 4:45	Refreshments (BOGGS Center for Energy and Biotechnology, Bldg 15, Room 600)
4:45 – 5:00	Jumao Yuan (Chemistry, LSU) Workflow for Tomography Inspection of Additive Manufacturing Samples
5:00 – 5:15	Xin Li (Electrical Engineering and Computer Science, LSU) A New Framework of Semi-structured Quadrilateral Mesh Generation for Large-scale 2D Geometries
5:15 – 5:30	Alex Hoover (Mathematics, Tulane University) Swimming performance, resonance, and shape evolution in heaving flexible panels

Saturday, March 18

9:00 – 9:45	Ricardo Cortez (Mathematics, Tulane University) Fluid/microstructure interactions: Mathematical models and computational issues
9:45 – 10:00	Matthew Bilskie (Center for Coastal Resiliency, LSU) High Performance Computing to Support Louisiana Coastal Resiliency
10:00 – 10:15	Roseanna Gossmann (Mathematics, Tulane University) A simplified human birth model: translation of a rigid cylinder through a passive elastic tube
10:15 - 10:45	Coffee Break
10:45 – 11:00	Jiayu Zhai (Mathematics, LSU) Finite Element Approximation of Large Deviation Principle
11:00 – 11:15	Paul Sinz (Mathematics, LSU) Evaluation of a GFEM for High Contrast Suspensions
11:15 – 11:30	Asma Azizi (Mathematics, Tulane University) A Bipartite Network Generation Using Joint Degree Distribution
11:30 – 11:45	Amanda Diegel (Mathematics, LSU) An Efficient Solver for a First Order in Time Numerical Scheme for the Cahn-Hilliard Equation
11:45 – 1:00	Lunch (BOGGS Center for Energy and Biotechnology, Bldg 15, Room 600)
1:00 – 1:45	L. Ridgway Scott (Mathematics and Computer Science, University of Chicago) Automated Modeling with FEniCS

1:45 – 2:00	Amy Buchmann (Mathematics, Tulane University) Interactions of Elastic Cilia Driven by a Geometric Switch
2:00 – 2:15	<i>Coffee Break</i>
2:15 – 2:30	Xu Zhang (Mathematics, Mississippi State Univ.) Superconvergence of Immersed Finite Element Methods
2:30 – 2:45	Emily Meyer and Erin Stafford (Mathematics, Tulane) Risk-Based Model for Vector-Borne Diseases with Host Behavior Change
2:45 – 3:00	John Lagrone (Mathematics, Tulane Univ.) Bacterial Motility in Confined Environments
3:00 – 3:15	Eyad Said (Mathematics, LSU) Damage Modeling Using Dissipation Potentials For State Based Peridynamic Fracture Evolution