

NERCCS 2019: Schedule of Contributed Talks

Each talk will be 20 minutes long, including Q&As and transitions.

Wednesday April 3rd

4:30-5:50pm

Contributed Talks 1: Biological Systems (Symposium Hall) Chair: TBD

1. Cassandra Williams, Anca Radulescu and Annalisa Scimemi: Complex Cell Geometry Affects Estimates of Glutamate Transporter Density in Astrocytes
2. Istvan Kovacs and Albert-Laszlo Barabasi: Complex Statistical Interaction in Biology
3. Brendan Case and Laurent Hébert-Dufresne: Exploring Spillback and Dilution Effects: A Unifying Framework Based on an Emergent Pathogen in Bumble Bees
4. Alexander Burnham, Samantha Alger, Laurent Hébert-Dufresne and Humberto Boncristiani: Flowers As Dirty Doorknobs: Virus Transmission Through Flowers Depends on Floral Diversity

4:30-5:50pm

Contributed Talks 2: Dynamical Systems (Engineering Science 2008) Chair: TBD

1. Katherine Rhodes and Ashwin Vaidya: Least Action Principle Applied to a Non-Linear Damped Pendulum
2. Adrian Frazier: On the Cusp: Bistability and Attractor Strength Predict Reaction Time Hurst Exponents
3. Joseph Pateras, Bong Jae Chung and Ashwin Vaidya: Entropy Production and Segre-Silberberg Effect
4. Benjamin De Bari and James Dixon: Coupled Dissipative Structures: A Physical Analog of a Coordinative Structure

Thursday April 4th

11:10am-12:30pm

Contributed Talks 3: Data Science Special Session I (Symposium Hall) Chair: TBD

1. Kayvan Tirdad, Alex Dela Cruz, Hossein Rahnama and Alireza Sadeghian: Deep Learning Based Cancer Classification of Pathology Slides Using Cancer Cellularity Score of Pathology Patches
2. B. Ülgen Kılıç, Michael Vaiana, Ethan M. Goldberg and Sarah F. Muldoon: Biomedical Image Analysis and Cell Localization via Persistent Homology
3. Daniel Trembley: Swarm Optimization in the Search of Extraterrestrials by Radio Signal Detection
4. Shadan Ghaffaripour, Kayvan Tirdad, Alex Dela Cruz, Hossein Rahnama and Alireza Sadeghian: A Data-Driven Neuro-Wavelet Approach to Electric Arc Furnace Modeling

11:10am-12:30pm

Contributed Talks 4: Brain & Neural Systems (Engineering Science 2008) Chair: TBD

1. Kanika Bansal, Javier Garcia, Sarah Muldoon, Paul Sajda and Jean Vettel: Dynamics of Large Amplitude Fluctuations in Human EEG Differentiate Individual and Task-Dependent Variability
2. Maria Ruiz-Blondet, Carlos Martinez and Vladimir Miskovic: Analyzing Complexity and Entropy of Depressed Patients Using Spectral Slopes
3. Johan Nakuci, Mathew McGuire, Ferdinand Schweser, David Poulsen and Sarah F. Muldoon: Changes in Global Brain Connectivity Resulting from Traumatic Brain Injury
4. Simone Evans and Anca Radulescu: Universality of the Configuration-Dynamics Relationship in Nonlinear Networks

3:45-5:05pm

Contributed Talks 5: Networks (Symposium Hall) Chair: TBD

1. Dane Taylor: Eigenvector-Based Centralities for Multilayer Networks Are Tuned by the Topology of Interlayer Coupling
2. David Passey, Benjamin Webb, Dallas Smith and Leonid Bunimovich: The Specialization Model of Network Growth
3. Mitchell Sailsbery, Tyler Jarvis, Connor Robertson, Jacob Heiner and Mckell Stauffer: Facility Location Using Markov Chains on Spatial Networks
4. Zhao Song and Dane Taylor: Spectrum Behavior of Laplacian for Multiplex Networks with General Coupling

3:45-5:05pm

Contributed Talks 6: Social Systems I (Engineering Science 2008) Chair: TBD

1. Lorraine Sugar and Christopher Kennedy: Dynamics of Urban Scaling
2. Magdalena Tywoniuk: CDS Central Counterparty Clearing Liquidation: Road to Recovery or Invitation to Predation?
3. Andreas Pape and Peter DiCola: The Emergence of Monitoring
4. Manqing Ma and Jianxi Gao: Time-Varying Markov Chain Modeling of Social Convention Change Process

Friday April 5th

11:10am-12:30pm

Contributed Talks 7: Data Science Special Session II (Symposium Hall) Chair: TBD

1. Yingjun Dong and Hiroki Sayama: Optimizing Facial Feature Extraction for Emotion Detection on Mobile Devices
2. Yiming Che and Changqing Cheng: Multi-Fidelity Modeling in Sequential Design for Identification of Stability in Dynamic Time-Delay Systems
3. Abigail Hotaling and James Bagrow: Efficient Algorithms for Crowdsourcing Problems Introduce Bias
4. Andrew Becker and James Bagrow: UAFS: Uncertainty Aware Feature Selection for Multiple Imputation Problems

11:10am-12:30pm

Contributed Talks 8: Social Systems II (Engineering Science 2008) Chair: TBD

1. Kevin Andrew: Modeling the Cooperative and Adversarial Behaviors of Farmer and Regulator Agents in Vermont's Missisquoi Bay Area
2. Dobromir Dotov, Dan Bosnyak and Laurel Trainor: Collective Phenomena in Sensorimotor Synchronization: How the Collective Central Moment Stabilizes Group Drumming
3. Jason Marshall, Neil G. MacLaren, Siaki Tetteh-Nartey and Etkan Topaloglu: Information Diffusion in Organizations: A Network Simulation
4. Yiding Cao, Yingjun Dong, Minjun Kim, Neil MacLaren, Ankita Kulkarni, Shelley Dionne, Francis Yammarino and Hiroki Sayama: Examining the Effects of Expertise Diversity on Collective Design and Innovation Using an Online Social Network Experiment and "Idea Geography" Visualization: An Initial Report