

NERCCS 2021 Oral Presentation Schedule

April 1, 2021

11:00am-12:20pm EDT	Session 1 [Main virtual room - Symposium Hall] 56 Li Pi, Paul Expert and Ceire Costelloe 28 Samin Aref and Zachary Neal 55 Guillaume St-Onge, Hanlin Sun, Antoine Allard, Laurent Hébert-Dufresne and Ginestra Bianconi 9 Pegah Hozhabrierdi, Raymond Zhu, Maduakolam Onyewu and Sucheta Soundarajan	Chair: Alfredo Morales CPE spreading patterns from contact networks of patients in 3 urban hospitals: implications for infection prevention and control Analyzing coalitions, ideology, and effectiveness in the US Congress by optimally partitioning signed networks of legislators Bursty exposure on higher-order networks leads to nonlinear infection kernels Network-Based Analysis of Early Pandemic Mitigation Strategies: Solutions, and Future Directions
11:00am-12:20pm EDT	Session 2 [Parallel virtual room - Tree House] 54 Mateusz Wilinski and Andrey Lokhov 66 Dj Passey, Ben Webb, Joseph Wilkes and Joseph Jamieson 30 Andreia Sofia Teixeira, Francisco C. Santos, Alexandre P. Francisco and Fernando P. Santos 37 Gabriele Pisciotta and Giulio Rossetti	Chair: Leila Hedayatifar Scalable Learning of Independent Cascade Dynamics from Partial Observations Understanding Reservoirs: Ideal Networks for Replicating Chaos Fairness in multiplayer ultimatum games through degree-based role assignment A Network Science approach to Instance Matching
3:05-4:25pm EDT	Session 3 [Main virtual room - Symposium Hall] 17 Alfredo Morales, Isabella Loaiza and Sandy Pentland 19 Ülgen Kılıç, Sarah Muldoon and Dane Taylor 6 Andrea Allen, Mariah Boudreau, Nicholas Roberts and Laurent Hebertdufresne 62 Dylan Morris, Daniel Cooney, Simon Levin, Daniel Rubenstein and Pawel Romanczuk	Chair: Xingye Qiao Modeling Migrant Mobility Geometrical and topological data analyses reveal that higher-order structures provide flow channels for neuronal avalanches Modeling epidemic interventions with probability generating functions Social Dilemmas of Sociality in the Presence of Beneficial and Costly Contagion
3:05-4:25pm EDT	Session 4 [Parallel virtual room - Tree House] 47 Denis Patterson and Jonathan Touboul 20 Eric Peña and Hiroki Sayama 26 Lingqi Meng and Naoki Masuda 82 Caitrin Hall, Ji Chul Kim, Edward Large and Alexandra Paxton	Chair: Andreas Pape A Mathematical Model of Neuronal Identity with Ectopic Domains A Life Worth Mentioning: Complexity of Conway's Game of Life and Other Notable Life-like Rules Epidemic threshold for metapopulation model networks with a second-order mobility rule Differential Coordination Patterns During Human-Metronome Phasing

April 2, 2021

11:00am-12:20pm EDT	Session 5 [Main virtual room - Symposium Hall] 13 Daniel Stroembom and Alice Antia 32 Zhao Song and Dane Taylor 38 Jan Korbelt, Simon Lindner, Rudolf Hanel and Stefan Thurner 52 Virginia Morini, Laura Pollacci and Giulio Rossetti	Chair: Joey Tsai Anticipation induces polarized collective motion in attraction based models Asymmetric Coupling of Networks Optimally Accelerates Collective Dynamics Thermodynamics of structure-forming systems Towards a Standard Approach for Echo Chamber Detection: Reddit Case Study
11:00am-12:20pm EDT	Session 6 [Parallel virtual room - Tree House] 34 Massimo Stella 45 Shuang Zhang, Feifan Liu and Haoxiang Xia 39 Tuan Pham, Andrew Alexander, Jan Korbelt, Rudolf Hanel and Stefan Thurner 1 Elie Alhajjar, Ryan Fameli and Shane Warren	Chair: Dane Taylor Cognitive network science and its links with Education, complex systems and ways of thinking Understanding Scholars Mobility in Knowledge Embedded Space Balanced and fragmented phases in societies with homophily and social balance Are Terrorist Networks Just Glorified Criminal Cells?
3:05-4:25pm EDT	Session 7 [Main virtual room - Symposium Hall] 81 Mengyuan Sun and Naoki Masuda 31 Anca Radulescu 24 Bao Huynh, Haimonti Dutta and Dane Taylor 76 Ülgen Kılıç and Sarah Muldoon	Chair: Barney Ricca COVID-19 impacts on domestic airlines via multilayer network analysis Complex dynamics in networks, templates and mutated systems Impact of Community Structure on Consensus Machine Learning Characterization of communities in dynamic functional networks
3:05-4:25pm EDT	Session 8 [Parallel virtual room - Tree House] 77 Marina Vegué, Vincent Thibeault, Patrick Desrosiers and Antoine Allard 40 Yiming Che and Changqing Cheng 43 Chanon Thongprayoon, Lorenzo Livi and Naoki Masuda 75 Vincent Thibeault, Marina Vegué, Antoine Allard and Patrick Desrosiers	Chair: Georgi Georgiev Dimension reduction on heterogeneous networks Active Learning and Relevance Vector Machine in Efficient Estimate for Basin Stability of Dynamic Networks Visualizing trajectory of tie-decay temporal networks Dimension reduction of high-dimensional dynamics on networks with adaptation

NERCCS 2021 Poster Presentation Schedule

March 31, 2021

3:50-5:20pm EDT Poster Session 1

11 Scott Donaldson	Flocc: From Agent-Based Models to Interactive Simulations on the Web
15 Felipe Xavier Costa and Pedro Pessoa	Entropic dynamics of networks
25 Goktug Islamoglu	Exact Formulation of Ising Model Transitions Between Six Magnetic Phases
29 Jun Kataoka, Jayanth Sivakumar, Eric Peña, Yiming Che and Changqing Cheng	Network Reconstruction (Bayesian Sequential Inference of Sparse Network Connectivity)
33 Nicholas Landry and Karen Stengel	The effect of a viral load function on epidemic dynamics
41 Salvatore Citraro, Massimo Stella and Giulio Rossetti	Towards a multiplex network model of word associations and similarity in the human mind
51 Kazuki Nakajima, Kazuyuki Shudo and Naoki Masuda	Configuration models for hypergraphs preserving local quantities of nodes and hyperedges
53 Stephany Rajeh, Marinette Savonnet, Eric Leclercq and Hocine Cherifi	Correlation of community-aware and classical centrality measures: Examining the role of network topology
57 Jake Williams and Diana Solano-Oropeza	The Mixing Law
59 Penghang Liu, Tomomi Kito, Naoki Masuda and A. Erdem Sariyüce	Temporal Motifs in Patent Opposition and Collaboration Networks
63 Francesca Larosa, Jamie Rickman and Nadia Ameli	Finding the right dam(n) partners for a just energy transition
65 Daiki Miyagawa, Koki Okamoto and Genki Ichinose	Robustness of football passing networks against cascading failure
67 Luka Blagojević and Aleksandra Alorić	Incremental research - a favoured strategy in the "publish or perish" environment
69 Mahsa Bagherikalhor and G.Reza Jafari	Abnormal behavior of the Heider balance theory with heterogeneous triads
71 Srinivas Pandey and Hiroki Sayama	Analyzing Eccentric Behavior of GAB Social Media Users
73 Noha Abdel-Mottaleb, Kashin Sugishita, Naoki Masuda and Qiong Zhang	Bio-Inspired Water Distribution Network Design
79 Tayeb Jamali, Olha Buchel, Yaneer Bar-Yam and Leila Hedayatifar	A Meta-Population Movement-Based Epidemic Model for COVID-19 Pandemic
83 Oleg Pavlov and Evangelos Katsamakos	COVID-19 and Financial Sustainability of Academic Institutions
85 Sangeeta Rani Ujjwal, Ulrike Feudel and Ramakrishna Ramaswamy	Intermittent frequency chimeras in modular network of FitzHugh-Nagumo oscillators

April 1, 2021

4:30-6:00pm EDT Poster Session 2

2 Yanchen Liu	approximate network symmetry
4 John Meluso, Laurent Hébert-Dufresne, James Bagrow and Rob Razzante	Masculinity Contest Cultures and Inclusive Cultures: Insights From a Network Model of Organizational Socialization and Promotion
18 Christopher Diggans, Jeremie Fish and Erik Bollt	Emergent hierarchy through conductance-based node constraints
22 Volkan Saribas, Babek Erdebilli and Ibrahim Yilmaz	MULTICRITERIA SELECTION AND EVALUATION OF THE LIFESAVING UAVs FOR A DETERMINED AREA (AEGEAN SEA COASTLINE) IN TURKEY BY COMPARING TODIM&GOAL PROGRAMMING (GP) METHOD
35 Ruodan Liu, Masaki Ogura, Elohim Fonseca Dos Reis and Naoki Masuda	Modeling epidemic spreading in Markovian temporal networks with different degrees of concurrency
36 John O'Meara, Ashwin Vaidya and Stephen Essien	Complexity and Curriculum: Examining the Role of Connectivity in a Precalculus Course
42 Estera Boncea, Paul Expert and Ceire Costelloe	Exploring the connectivity of a hospital: A network analysis of patient movement community structures
44 Fabiano Lemes Ribeiro	On the relation between transversal and longitudinal scaling in cities
46 Prosenjit Kundu, Chittaranjan Hens, Baruch Barzel and Pinaki Pal	Perfect synchronization in networks of Sakaguchi-Kuramoto oscillators
49 Touria Karite, Adil Khazari and Delfim F. M. Torres	Optimal control problem of variable order fractional systems with Riemann-Liouville derivative
50 Rupam Acharyya, Penghang Liu, A. Erdem Sariyuce and Naoki Masuda	Detecting Fraudulent Users in Online Marketplaces Using Temporal Motifs
58 Matthew Tomlinson, David Greenwood and Marcin Mucha-Kruczynski	Extreme financial losses and gains: mutually-exciting arrivals or conditional volatility?
60 André Martins	Defining extremism in opinion models
64 Cynthia Siew and Anutra Guru	Longitudinal Subject Fluency Networks of Psychology and Biology Students
68 Francesco Bertolotti, Angela Locoro and Luca Mari	Emergence of Risk Sensitivity in a First-principles Agent-based model
70 Andreas Pape and Peter DiCola	A Modular Common Pool Resource Model with Social Planning
74 Elias Fernández Domingos, Jelena Grujić, Juan Carlos Burguillo, Francisco C. Santos and Tom Lenaerts	Modeling behavioral experiments on uncertainty and cooperation with population-based reinforcement learning – Extended Abstract
78 Tong Wu, Matthew McGuire, Sarah Muldoon and David Poulsen	Evolution of brain networks after traumatic brain injury
80 Xinglong Ju and Feng Liu	Optimizing Wind Farm Efficiency with Self-Adaptivity Mechanism in Evolutionary Algorithm
84 Zachary Boyd and Kayvan Lavassani	Resiliency of Global Medical Equipment Supply Chains