Science at Extreme Scales: Where Big Data Meets Large-Scale Computing

Thursday October 4, 2018

2:00–2:30 **Erin Molloy** (University of Illinois at Urbana-Champaign)
Scaling species tree estimation methods to large datasets using NJMerge

2:30–3:00 **Philipp Haehnel** (Trinity College Dublin)
Scaling up Deep Learning for PDE-based Models

Tuesday October 9, 2018

2:00–2:30 **Mojtaba Haghighatlari** (SUNY Buffalo)
Accelerated discovery of high-refractive-index materials, using molecular modeling and machine learning

2:30–3:00 **Francisco Matos** (Max Planck Institute for Plasma Physics)
Gaussian Process Tomography with Deep Neural Networks

Thursday October 11, 2018

2:00–2:30 **Katherine Breen** (Baylor University)
Developing a Surrogate Model for SWAT with Remotely Sensed Soil Moisture Using Python

2:30–3:00 **James Levitt** (University of Texas at Austin)
Sampling for Hierarchical Approximation of Kernel Matrices

Tuesday October 23, 2018

2:00–2:30 **Bastian Bohn** (Rheinische Friedrich-Wilhelms-Universität Bonn)
Optimal data transformation for sparse grids

2:30–3:00 **Justin Sunu** (Claremont Graduate University)
Unsupervised vehicle recognition using incremental reseeding of acoustic signatures

Thursday October 25, 2018

2:00–2:30 **Marco Duarte** (University of Massachusetts Amherst)
Graph and Autoencoder-Based Unsupervised Feature Selection with Broad and Local Data Structure Preservation

2:30–3:00 **Saerom Park** (Seoul National University)
AI and Security: Adversarial Attacks and Defenses

Thursday November 1, 2018

2:00–2:30 **Ionut-Gabriel Farcas** (Technical University of Munich)
Adaptive multilevel stochastic collocations for uncertainty propagation and Bayesian parameter estimation

2:30–3:00 **Longfei Gao** (King Abdullah Univ. of Science and Technology (KAUST))
Machine Learning for PDE-based Applications?

Tuesday November 13, 2018

2:00–2:30 **Jinlong Wu** (Virginia Tech)
Data-Driven Turbulence Modeling with Bayesian Inference and Physics-Informed Machine Learning

Tuesday November 20, 2018

2:00–2:30 **Pietro Grandinetti** (LegalKite)
Control of large-scale traffic networks

2:30–3:00 **David Kim** (McMaster University)
Insights From Linking Schrödinger Equation to Machine Learning

Tuesday December 4, 2018

2:00–2:30 **Chee Wei Tan** (City University of Hong Kong)
Network Centrality as Statistical Inference in Large Networks

Thursday December 6, 2018

2:00–2:30 **Samuel Araki** (Air Force Research Laboratory)
Overview of AFRL's Modeling Activities on Electric Propulsion Devices

2:30–3:00 **Eder Sousa** (Air Force Research Laboratory)
Application of Machine Learning algorithms to In-Space Propulsion