Friday, March 18

8:00 – 9:00am
Continental Breakfast
Convocation Room

9:00 – 11:30am
Sessions
FA-01 – FA-06

11:45am – 12:45pm
Plenary Panel:
Ramadge, Abbe, Cuff and Mittal
F101

9:40 – 10:00am
A Reverse Entropy Power Inequality
Tomasz Tkocz, Princeton University

10:00 – 10:30am
BREAK

10:30 – 10:50am
Optimal Species Extrapolation with Random Cutoff
Yihong Wu, University of Illinois, Urbana-Champaign

10:50 – 11:10am
Spectral Bounds for Independent Cascade Model with Sensitive Edges
Eun Jee Lee, Princeton University

11:10 – 11:30am
Persistence of Centrality in Random Growing Trees
Varun Jog, University of Pennsylvania

INVITED SESSION
FA-01 Invited
Statistical Machine Learning and Optimization
Room F006

Organizer: Aurelie Lozano

9:00 – 9:20am
PDW Methods for Support Recovery in Nonconvex High-dimensional Problems
Poh-Ling Loh, University of Pennsylvania

9:20 – 9:40am
Contextual MDPs: A New Model and Analysis for Reinforcement Learning with Rich Observations
Akshay Krishnamurthy, Microsoft Research

9:40 – 10:00am
Confidence Intervals for the Mixing Time of a Reversible Markov Chain from a Single Sample Path
Daniel Hsu, Columbia University

10:00 – 10:30am
BREAK

10:30 – 10:50am
Robust Trimmed Estimation: Statistical Analysis and Efficient Optimization
Eunho Yang, IBM Research

10:50 – 11:10am
Real-time On-device Learning and Inference with Structured Transforms
Vikas Sindhwani, Google Research

11:10 – 11:30am
Semiparametric Exponential Family Graphical Model
Han Liu, Princeton University

INVITED SESSION
FA-02 Invited
Learning Theory and Information Theory
Room F004

Organizers: Sebastien Bubeck and Emmanuel Abbe

9:00 – 9:20am
Communication Lower Bounds for Statistical Estimation Problems via a Distributed Data Processing Inequality
Tengyu Ma, Princeton University

9:20 – 9:40am
How to Classify from Sparse Data
Elad Hazan, Princeton University

9:40 – 10:00am
BREAK

9:00 – 9:20am
Securing the Perimeter at LinkedIn: Approaches to Registration and LogIn Defense
David Freeman, LinkedIn

9:20 – 9:40am
Blackmarket-driven Interventions: Fighting Account Abuse at Google
Kurt Thomas, Google

9:40 – 10:00am
SybliFuse: Combining Local Attributes with Global Structure to Perform Robust Sybil Detection
Peng Gao, Princeton University

10:00 – 10:30am
BREAK

10:30 – 10:50am
Fighting Malware on Facebook
Neha Chachra, Facebook

10:50 – 11:10am
Beyond Detecting Bots in Social Networks: A Path to Next-Generation Social Media Analytics
Yalin Sagduyu, Intelligent Automation, Inc

11:10 – 11:30am
Automatically Analyzing Cybercriminal Markets
Sadia Afroz, Berkeley University
9:00 – 9:20am
**Prediction of Granular Time-Series Energy Consumption for Manufacturing Jobs from Analysis and Learning of Historical Data**
Chris Duerden, University of Central Lancashire, United Kingdom
Lik-Kwan Shark, University of Central Lancashire, United Kingdom
Geoff Hall, University of Central Lancashire, United Kingdom
Joe Howe, University of Chester, United Kingdom

9:20 – 9:40am
**Distributed Resource Allocation Using One-Way Communication with Applications to Power Networks**
Sindri Magnússon, KTH, Sweden
Chinwendu Enyioha, Harvard University
Kathryn Heal, Harvard University
Na Li, Harvard University
Carlo Fischione, KTH, Sweden
Vahid Tarokh, Harvard University

9:40 – 10:00am
**A Generalized Nash Equilibrium Model of a Resource Stockpile with Independent Market Response Dynamics**
Justin Lloyd, Johns Hopkins University
Gerard Meyer, Johns Hopkins University

10:00 – 10:30am
**BREAK**

10:30 – 10:50am
**Detecting Community Structures in Hi-C Genomic Data**
Ireneo Cabreros, Princeton University
Emmanuel Abbe, Princeton University
Aristotelis Tsigiris, New York University

10:50 – 11:10am
**Efficient Subspace Clustering of Large-scale Data Streams with Misses**
Panagiotis A Tragantitis, University of Minnesota
Georgios B. Giannakis, University of Minnesota

11:10 – 11:30am
**Improving the Recovery of Principal Components with Semi-Deterministic Random Projections**
Keegan Kang, Cornell University
Giles Hooker, Cornell University

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**FA-06 Information Theory & Communications 3**
**Room F009**

9:00 – 9:20am
**Multilevel Diversity Coding with Regeneration: Separate Coding Achieves the MBR Point**
Shuo Shao, Texas A&M University
Tie Liu, Texas A&M University
Chao Tian, University of Tennessee, Knoxville

9:20 – 9:40am
**Learning with Finite Memory for Machine Type Communication**
Taehyeun Park, Virginia Tech
Wael Saad, Virginia Tech

9:40 – 10:00am
**EXIT Chart Based IRA Code Design for TDMR**
Morteza Mehrnoush, Washington State University
Benjamin J Belzer, Washington State University
Krishnamoorthy Sivakumar, Washington State University
Roger Wood, HGST

10:00 – 10:30am
**BREAK**

10:30 – 10:50am
**K Users Caching Two Files: An Improved Achievable Rate**
Saeid Sahraei, EPFL, Switzerland
Michael Gastpar, EPFL Switzerland & University of California, Berkeley

10:50 – 11:10am
**Strong Coordination over a Line when Actions are Markovian**
Badri N Vellambi, New Jersey Institute of Technology
Joerg Kliewer, New Jersey Institute of Technology
Matthieu Bloch, Georgia Institute of Technology & Georgia Tech
Lorraine, France