

CONTINENTAL BREAKFAST & REGISTRATION – CONVOCATION ROOM					8:00AM – 8:30AM
AM SESSIONS FA-01 – FA-05					
	FA-01 Room F004 Structured Codes in Network Information Theory Organizer: Chandra Nair – The Chinese University of Hong Kong	FA-02 Room F006 Property Estimation & Testing 1 Organizers: Jiantao Jiao, Tsachy Weissman – Stanford	FA-03 Room F008 Optimization, Learning, and Inference IV Organizer: Yuxin Chen – Princeton University	FA-04 Room F108 Privacy, Security & Anonymization	FA-05 Room F009 Communication and Networks III
8:30AM – 8:50AM	Towards an Algebraic Network Information Theory: I. A Joint Typicality Framework Michael Gastpar	Measuring Entropy: Classical and Quantum Jayadev Acharya	Optimization-based AMP for Phase Retrieval: The Impact of Initialization and ℓ_2 -regularization Arian Maleki	Local Differential Privacy for Physical Sensor Data and Sparse Recovery Anna Gilbert, Audra McMillan	A Tunable Base Station Cooperation Scheme for Poisson Cellular Networks Ke Feng, Martin Haenggi
8:50AM – 9:10AM	Towards an Algebraic Network Information Theory: II. Simultaneous Decoding Bobak Nazer	Discovering Potential Correlations via Hypercontractivity Weihao Gao	Convexity of Mutual Information Along the Heat Flow Andre Wibisono, Varun Jog	Privacy Against Matching under Anonymization and Obfuscation in the Gaussian Case Ke Li, Hossein Pishro-Nik, Dennis Goeckel	Phase-Type Bounds on Network Performance Massieh Boroujeny, Yariv Ephraim, Brian Mark
9:10AM – 9:30AM	Structure Versus Channel Uncertainty: Robust GDoF Outer Bounds for Wireless Interference Networks Based on Aligned Image Sets Syed A. Jafar	Optimal Distribution Learning Up To Permutations Jiantao Jiao	HiGrad: Statistical Inference for Stochastic Approximation and Online Learning Weijie Su	Security Investment under Cognitive Constraints: A Gestalt Nash Equilibrium Approach Juntao Chen, Quanyan Zhu	Stability of Fair Trade-Off Solution Between Radar and Communication Objectives on Hostile Interference Andrey GarnaeV, Wade Trappe, Athina Petropulu
9:30AM – 9:50AM	Structured Coding Approach to Multiple-Access Channel with Feedback S. Sandeep Pradhan	Hypothesis Testing with Alternative Distances Gautam Kamath	Random Projections for Faster Non-Convex Optimization Mert Pilanci	Statistical Matching in the Presence of Anonymization and Obfuscation: Non-Asymptotic Results in the Discrete Case Nazanin Takbiri, Ke Li, Hossein Pishro-Nik, Dennis Goeckel	Training-Based Joint Channel and Antenna Impedance Estimation Shaohan Wu, Brian L Hughes
9:50AM – 10:10PM	The Break-down of the Optimality of Superposition Coding for Three or More Receivers Chandra Nair	Testing Degree Corrections in Stochastic Block Models Rajarshi Mukherjee	Data-Driven Visual Correspondences in the Presence of Symmetry Qixing Huang		On Diffusive Molecular Communication with Mobile Nanomachines Neeraj Varshney, Aditya K Jagannathan, Pramod Varshney
10:10AM – 10:30PM					
Break				10:30AM – 10:50AM	
PLENARY TALK: ALEXANDROS DIMAKIS – ROOM F101				10:50AM – 11:50AM	
Lunch Break					

CONTINENTAL BREAKFAST & REGISTRATION – CONVOCATION ROOM				8:00AM – 8:30AM	
AM SESSIONS FA-06 – FA-08					
	FA-06 Room F109 Machine Learning I	FA-07 Room F005 Adversarial Machine Learning Organizer: Prateek Mittal – Princeton University	FA-08 Room F007 Computational Neuroscience Organizer: Siamak K. Sorooshyari – Johnson & Johnson		
8:30AM – 8:50AM	A Deep Reinforcement Learning-Based Framework for Content Caching Chen Zhong, M. Cenk Gursoy, Senem Velipasalar	Securing the Visual Channel: How My Car Saw the Light and Stopped Learning Richard Chow, Hsin-Mu Tsai	Learning Scene Gist with Convolutional Neural Networks to Improve Object Recognition Gabriel Kreiman, Eric Wu, Kevin Wu		
8:50AM – 9:10AM	Understanding Mean-Field Effects of Large-Population User Data Obfuscation in Machine Learning Alex Dunyak, Quanyan Zhu	Enhancing Robustness of Machine Learning Systems via Data Transformations Nitin Bhagoji, Daniel Cullina, Chawin Sitawarin, Prateek Mittal	Learning to Predict Action Potentials End-to-End from Calcium Imaging Data Drew Linsley, Jeremy Linsley, Tarun Sharma, Nathan Meyers, Thomas Serre		
9:10AM – 9:30AM	Consensus-Based Transfer Linear Support Vector Machines for Decentralized Multi-Task Multi-Agent Learning Rui Zhang, Quanyan Zhu	Provable Learning in the Presence of Adversaries Daniel Cullina, Arjun Bhagoji, Prateek Mittal	Universality in Olfactory Coding of Odor Identity and Intensity Guangwei Si, Jessleen K. Kanwal, Yu Hu, Christopher J. Tabone, Jacob Baron, Matthew Berck, Gaetan Vignoud, Aravinthan D.T. Samuel		
9:30AM – 9:50AM	Ranking Causal Influence of Financial Markets via Directed Information Graphs Theo Diamandis, Yonathan Murin, Andrea Goldsmith	Adversarial Machine Learning: the Case of Collaborative Filtering Rasoul Etesami, Negar Kiyavash	Toward Highly Interpretable Convolutional Neural Networks: Stability and Compression Reza Abbasi-Asl, Bin Yu		
9:50AM – 10:10PM	SNN-Cache: A Practical Machine Learning-Based Caching System Utilizing the Inter-Relationships of Requests Youngbin Im, Prasanth Prahlanan, Tae Hwan Kim, Yong-Geun Hong, Sangtae Ha		Closed-loop Stimulation to Lateral Temporal Cortex Rescues Functional Networks and Improves Memory Michael Kahana, Youssef Ezzyat		
10:10AM – 10:30AM			Optimal Information Transmission by Overlapping Retinal Cell Mosaics Yilun Zhang, David Kastner, Stephen Baccus, Tatyana Sharpee A		
10:30AM – 10:50PM			Communication-Theoretic Formulation of a Continuous Linear-Nonlinear Model of Retinal Ganglion Cells Siamak K. Sorooshyari, Stephen A. Baccus		
Break				10:30AM – 10:50AM	
PLENARY TALK: ALEXANDROS DIMAKIS – ROOM F101				10:50AM – 11:50AM	
Lunch Break					

PM SESSIONS FP-01 – FP-06						
PLENARY TALK: BIN YU – ROOM F101					1:20PM – 2:20PM	
Break			2:20PM – 2:40PM			
	FP-01 Room F004 Sequential Methods for Signal Processing and Control Organizers: George Moustakides – Rutgers University, Venu Veeravalli, University of Illinois – Urbana-Champaign	FP-02 Room F006 Property Estimation & Testing II Organizers: Jiantao Jiao, Tsachy Weissman – Stanford	FP-03 Room F008 Statistical Learning Organizers: Andrea Montanari – Stanford University, Emmanuel Abbe – Princeton University	FP-04 ROOM F108 Applications in Biology	FP-05 Room F009 Information & Coding Theory	FP-06 Room F109 Machine Learning II
2:40PM – 3:00PM	Scalable Robust Monitoring of Large-Scale Data Streams Yajun Mei	University A Unified Maximum Likelihood Approach for Optimal Distribution Property Estimation Ananda Theertha Suresh	On Computational Hardness with Graph Neural Networks Joan Bruna Estrach	Head Movements are Correlated with Other Measures of Visual Attention at Smaller Spatial Scales Brian Hu, Ismael Johnson-Bey, Mansi Sharma, Ernst Niebur	Lossy Compression of Decimated Gaussian Random Walks Alon Kipnis, Andrea Goldsmith, Georgia Murray	A Network-Driven Approach to Modeling the Spread of Ebola-Type Epidemics Neil Slighton, Jose Rico, Emily Kallfelz, Ji Qi, Christopher G. Brinton
3:00PM – 3:20PM	Controlled Information Fusion with Social Sensors Vikram Krishnamurthy	Estimating Learnability: Approximating Signal and Noise in the Sublinear Data Regime Gregory Valiant	How Well Can Generative Adversarial Networks (GANs) Learn Densities: A Nonparametric View Tengyuan Liang	Network Analysis of Virus- Innate Immune Interaction Within a Host Yufan Huang, Michelle Dai, Zhihao Zhang, Ruian Ke	Coded Status Updates in an Energy Harvesting Erasure Channel Abdulrahman Baknina, Sennur Ulukus	A Network-Driven Methodology for Sports Ranking and Prediction Kavirath Jain, Vincent Xia, Akshay Krishna, Christopher G. Brinton
3:20PM – 3:40PM	Low Rank Change Detection via Subspace Tracking Yao Xie	The Geometry of Hypothesis Testing Over Convex Cones Yuting Wei	Tensor Decomposition: Speeding Up Sum-of-Squares Algorithms Tselil Schramm		Locally Optimal, Delay- Tolerant Predictive Source Coding Zhen Xiang, David J. Miller	Automatic Diagnosis of Melanoma from Dermoscopic Image Using Real-Time Object Detection Shudipto Sekhar Roy, Akkas Uddin Haque, Jeremiah Neubert
BREAK					3:40PM – 4:00PM	
4:00PM – 4:20PM	Asymptotic Analysis of Algorithms for Quickest Detection of Dynamic Events Shaofeng Zou, Venu Veeravalli		On the Connection Between Learning Two-Layers Neural Networks and Tensor Decomposition Marco Mondelli		On the Capacity of Gaussian “Dirty” Z- Interference Channel with Common State Shahab Ghasemi-Goojani, Panagiotis Papadimitratos	Course Recommendation as Graphical Analysis James Jared, Connor Bridges, Joshua Weissmann, Astrid Montanez-Garay, Jonathan Spencer, Christopher G. Brinton
4:20PM – 4:40PM	Sequential Change Detection in Continuous-time Processes Sveinn Olafsson				Optimal Error Correcting Index Codes for Two Classes of Index Coding Problems Mahesh Babu Vaddi, B. Sundar Rajan	From MRFs To CNNs: A Novel Image Restoration Method Xinjie Lan, Kenneth Barner
4:40PM – 5:00PM						Predictive Learning Analytics for Video-Watching Behavior in MOOCs Madhumitha Shridharan, Ashley Willingham, Jonathan Spencer, Tsung-Yen Yang, Christopher G. Brinton

