Keynote Speaker

Michael I. Jordan, Ph.D., Pehong Chen Distinguished Professor in the Department of Electrical Engineering and Computer Science and the Department of Statistics at the University of California, Berkeley. His research interests bridge the computational, statistical, cognitive and biological sciences, and have focused in recent years on Bayesian nonparametric analysis, probabilistic graphical models, spectral methods, kernel machines and applications to problems in distributed computing systems, natural language processing, signal processing and statistical genetics. Prof. Jordan is a member of the National Academy of Sciences, a member of the National Academy of Engineering and a member of the American Academy of Arts and Sciences. He is a Fellow of the American Association for the Advancement of Science. He has been named a Neyman Lecturer and a Medallion Lecturer by the Institute of Mathematical Statistics. He received the IJCAI Research Excellence Award in 2016, the David E. Rumelhart Prize in 2015 and the ACM/AAAI Allen Newell Award in 2009. He is a Fellow of the AAAI, ACM, ASA, CSS, IEEE, IMS, ISBA and SIAM.

Time: December 16 (Wednesday): 9:00-10:00AM (Central Time)
Host: Hulin Wu, Ph.D., 2020 ICSA Applied Statistics Symposium Organizing Committee Chair, The Betty Wheless Trotter Professor & Chair, Department of Biostatistics & Data Science, University of Texas Health Science Center at Houston

Talk title: Towards a Blend of Statistics and Microeconomics

Abstract: Statistical decisions are often given meaning in the context of other decisions, particularly when there are scarce resources to be shared. Managing such sharing is one of the classical goals of microeconomics, and it is given new relevance in the modern setting of large, human-focused datasets, and in data-analytic contexts such as classifiers and recommendation systems. I'll discuss several recent projects that aim to explore this interface, including the study of exploration-exploitation trade-offs for bandits that compete over a scarce resource, notions of local optimality in nonconvex-nonconcave minimax optimization and how such notions relate to stochastic gradient methods, the use of Langevin-based algorithms for Thompson sampling, and multi-agent learning based on online gradient descent.