EPSTEIN INSTITUTE SEMINAR ▪ ISE 651

MCMC Methods for Dynamic Stochastic Optimization

ABSTRACT – Dynamic stochastic optimization generally suffers from the curse of dimensionality as state spaces grow exponentially in dimension and in the number of periods. Particle methods for filtering and smoothing, however, maintain a fixed number of states in each period and can converge to a posterior distribution using Markov Chain Monte Carlo methods. This talk will discuss how this approach can be applied in the context of dynamic stochastic optimization and conditions for convergence to an optimal solution.

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SPEAKER BIO – John R. Birge is the Jerry W. and Carol Lee Levin Distinguished Service Professor of Operations Management at the University of Chicago Booth School of Business. Previously, he was Dean of the McCormick School of Engineering and Applied Science and Professor of Industrial Engineering and Management Sciences at Northwestern University. He also served as Professor and Chair of Industrial and Operations Engineering at the University of Michigan, where he also established the Financial Engineering Program. He is former Editor-in-Chief of Mathematical Programming, Series B and former President of INFORMS. His honors and awards include the IIE Medallion Award, the INFORMS Fellows Award, the MSOM Society Distinguished Fellow Award, the Harold W. Kuhn Prize, the George E. Kimball Medal, the William Pierskalla Award, and election to the US National Academy of Engineering. He received M.S. and Ph.D. degrees from Stanford University in Operations Research, and an A.B. in Mathematics from Princeton University.

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TUESDAY, FEBRUARY 27, 2018
3:30PM – 4:50PM
USC ANDRUS GERONTOLOGY CENTER (GER), ROOM 206