

**PERSPECTIVES ON SIMULATION FOR OPTIMIZATION
AND OPTIMIZATION FOR SIMULATION**

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ABSTRACT

Optimizing the inputs for simulation models has been a topic of interest in the OR community for many years. Similarly, Monte Carlo methods for optimizing even deterministic functions have been subjects of interest in the statistics and computing communities for at least the same length of time. Recent interest in such global optimization problems arise in deep neural networks and the implications for learning and exploiting complex relationships has only intensified these interests. This talk will discuss frameworks to unify the views of these developments from different perspectives and particularly to address issues that arise in dynamic learning, optimization, and statistical inference.

AUTHOR BIOGRAPHY

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, former President of INFORMS, and current Editor-in-Chief of Operations Research. His work focuses on stochastic optimization methods and analysis as well as applications in multiple domains. His honors and awards include the CORS Harold Larnder Prize, 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.