

# Industrial and Systems Engineering Seminar

## *Dynamic Learning in Strategic Pricing Games*

Wednesday, February 24

3:15 PM – Refreshments before the Seminar

3:30 PM – Graduate Seminar

Mechanical Engineering Room 4125 A & B



### **Professor John R. Birge**

Jerry W. and Carol Lee Levin Professor of

Operations Management

The University of Chicago Booth School of Business

In monopoly pricing situations, firms optimally vary prices to learn demand. The variation must be sufficiently high to ensure complete asymptotic learning. In competitive situations, however, varying prices provides information to competitors and may reduce the value of learning. This talk will discuss how this effect can be strong enough to stop learning so that firms optimally reduce any variation in prices and choose not to learn demand. The result can be that the selling firms achieve a collaborative outcome instead of a competitive Nash equilibrium.

**BIO:** John R. Birge is the Jerry W. and Carol Lee Levin 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 and established the University of Michigan Financial Engineering Program. He is former Editor-in-Chief of *Mathematical Programming, Series B* and former President of INFORMS. He has received many honors and awards including 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.