



## Bruce Hajek

Professor, Leonard C. and Mary Lou Hoeft Endowed Chair in Engineering  
University of Illinois at Urbana-Champaign

***"Mechanism Design and Wireless Spectrum Auctions"***

**Thursday, March 13, 2014**

**Electrical Engineering Building (EEB 132) Lecture 3:00 PM**  
**Electrical Engineering Building Courtyard Reception 4:00 PM**  
Hosted by Rahul Jain & Michael Neely

This talk will focus on theory and practice of combinatorial auctions and their application to the sale of wireless spectrum licenses. As new wireless applications emerge worldwide, the wireless industry and government regulators are looking to reallocate wireless spectrum to better match the demand. Combinatorial auctions can play an effective role in the allocation process, but important implementation and theoretical issues remain. The talk will include an overview of recent research on the use of profit sharing contracts and core projecting auctions. (Joint work with Vineet Abhishek and Prof. Steven Williams)



Bruce Hajek received the BS in Mathematics and MS in Electrical Engineering from the University of Illinois and the Ph. D. in Electrical Engineering from the University of California at Berkeley. Since 1979 he has been on the faculty of the Department of Electrical and Computer Engineering and the Coordinated Science Laboratory, at the University of Illinois at Urbana-Champaign. Dr. Hajek pursues basic research in the area of modeling, analysis, and optimization in communication systems and networks. His recent research has focused on allocation based on game theory, peer-to-peer network protocols, and inference in graphical models. He received the IEEE Kobayashi Award for Computer Communications and the Donald P. Eckman Award of the IEEE Control Systems Society. He was elected to the US National Academy of Engineering in 1999.

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