

# 学术报告会

时间：2014年1月9日(周四)11:00

地点：电院群楼3-308会议室

## From Bayesian Inference to Evidential Reasoning

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### Abstract:

This presentation will introduce a novel Evidential Reasoning (ER) rule that can be used to combine conjunctively multiple pieces of independent evidence with various weights and reliabilities. The ER rule has been applied to a wide range of areas, such as decision and risk analysis under uncertainty, information fusion, medical diagnosis and fault diagnosis. In this talk, I will first briefly discuss Bayesian inference and Dempster-Shafer theory of evidence. And then I will introduce the ER rule which constitutes a generalised Bayesian inference process. Examples and real-world applications are discussed to illustrate the main ideas.

### Biography:

**Dr. Yu-Wang Chen** is lecturer in decision sciences at the University of Manchester. Prior to his current appointment, he was a postdoctoral research associate at the Decision and Cognitive Sciences (DCS) research centre of the University of Manchester, and a postdoctoral research fellow at the Department of Computer Science, Hong Kong Baptist University. He received the PhD degree in control and system engineering from the Department of Automation, Shanghai Jiao Tong University in 2008. He has published over 30 papers in journals and conferences, such as European Journal of Operational Research, Computers & Operation Research, Information Sciences and IEEE T-SMC. He holds and has completed as PI/Co-I several research projects funded by ERC, UK EPSRC, NSFC, etc. He is serving and served as associate editor of Web Intelligence and Agent Systems: An International Journal, editorial board member of International Journal of Productivity and Performance Management, special session organiser or programme committee member of a series of conferences, and UK EPSRC peer review member. His current research interests are mainly in the areas of multiple criteria decision analysis under uncertainties, modelling and optimization of complex systems, and risk analysis in supply chains.