Abstract: Despite its common occurrence in buyer-seller relationships, bargaining has only sporadic adoption in the operations literature. We analyze the role of bargaining in a firm’s revenue management. The firm sells a fixed amount of stock to an arrival stream of potential buyers, who are heterogeneous in their valuation of the product. At the beginning of each period, the firm may choose either to post a product price based on the stock level or to bargain with individual buyer to determine the selling price. We show that the firm’s policy depends critically on the distribution of the buyer’s valuation. When the scaled remaining life of the buyer’s valuation is increasing (decreasing), the firm should choose pricing (bargaining) at the beginning of the selling season and switch to bargaining (pricing) toward the end. When the scaled remaining life of the buyer’s valuation is invariant, the firm should stick to either pricing or bargaining throughout the selling season. We also discuss several variations of the model.

This is a joint work with J. George Shanthikumar.

Biography: Qi Annabelle Feng is an associate professor in Operations Management at Krannert School of Management, Purdue University. She was previously a faculty member at McCombs School of Business, The University of Texas at Austin. She received her Ph.D. in Operations Management from The University of Texas at Dallas in 2006. Her main research interest lies in studying firms’ sourcing decisions in the broad context of supply chain management. Her work focuses on individual firm’s procurement planning under uncertain environment and multiple firms’ interactions in sourcing relationships. She also works in the areas of product development and proliferation management, resource planning, economic growth models, and information system management. She is currently a Department Editor for Production and Operations Management. She received the first prize in the INFORMS Junior Faculty Paper Competition in 2009, the Franz Edelman Award in 2009, and the Wickham Skinner Early-Career Research Accomplishment Award in 2012.

For information about the OBAIS Seminar series, contact Uday Rao, uday.rao@uc.edu, 513 556 7138.