

The Hong Kong University of Science and Technology
Dept of Information Systems, Business Statistics and Operations Management
Dept of Industrial Engineering & Decision Analytics
Joint Seminar Announcement



**Managing Online Service Platforms with
Information Heterogeneity:
Service Provision and Contract Design**
by
Prof. Xin FANG
Singapore Management University

Date : **6 December 2024 (Friday)**
Time : **10:30 – 11:45 AM**
Venue : **Classroom 1034, LSK Business Building**

Abstract: This paper studies the service provision and contract design for online service platforms in the presence of information heterogeneity among customers. We consider an accommodation-sharing platform on which a landlord lists a house for booking. The house can be of high or low quality, and a customer knows the house quality with a probability. To increase the customer's willingness to book, the landlord can provide value-added service. For every successful booking, the platform charges a commission fee. By analyzing the equilibrium decisions of the three parties, we find that the landlord can leverage both price and service level to signal the house quality to an uninformed customer. The platform's optimal commission and profit can increase or decrease as the customer becomes more informed, so making the customer more informed does not always benefit the platform. Interestingly, the customer may prefer to be less informed as well.

Bio: Xin Fang is Associate Professor of Operations Management, MPA Research Fellow and Director of PhD Programmes at Lee Kong Chian School of Business, Singapore Management University. He earned his Ph.D. in Operations Management from Carnegie Mellon University in 2014, and his B.S. in Information Systems from Fudan University in 2008. Xin studies the problems related to competition and cooperation in global supply chains and digital economy. His research applies cooperative and non-cooperative game theory as well as the theory of social and economic networks to the areas of decentralized distribution systems, corporate social responsibility and online platforms. His work has been published in journals such as *Manufacturing & Service Operations Management*, *Operations Research and Production* and *Operations Management*.