

*The Hong Kong Polytechnic University
Department of Logistics and Maritime Studies
Research Seminar*

End-to-end Inventory Replenishment Model

by

Prof. Zuo-Jun Max SHEN
Chancellor's Professor
Department of Industrial Engineering and Operations Research
University of California, Berkeley

Date: 4 January 2019 (Friday)
Time: 10:30am - 11:30am
Venue: R501, Shirley Chan Building
The Hong Kong Polytechnic University
(Conducted in English)

Abstract:

Traditional inventory models often assume a predict-then-optimize paradigm. A prediction model which depicts the demand uncertainty is built then an optimization model is applied to solve for optimal inventory decisions based on the forecasting. However, the criteria by which we train the prediction model often differs from the ultimate criteria on which we evaluate them. In this research, we focus on building an end-to-end inventory replenishment model which simultaneously learns the probabilistic info of multiple uncertainty sources such as demand, lead time, while making replenishment decisions that directly capture the cost-based objective.

Bio:

Zuo-Jun Max Shen is a Chancellor's Professor in the Department of Industrial Engineering and Operations Research and the Department of Civil and Environmental Engineering at University of California, Berkeley. He is also an honorary professor at Tsinghua University and a Center Director at the Tsinghua-Berkeley Institute in Shenzhen. He received his Ph.D. from the Department of Industrial Engineering and Management Sciences at Northwestern University. He has been active in the following research areas: integrated supply chain design and management, operations management, data driven optimization algorithms and applications, energy systems, and transportation system planning and optimization. He has published more than 100 papers in top operations research and management science journals. His total Google Citations is 8373 with an h-index of 40.

Max is currently serving as a Department Editor for Production and Operations Management, and Associate Editors for leading journals such as Operations Research, Management Science, Manufacturing & Service Operations Management, Decision Sciences, Naval Research Logistics, and ISE Transactions.

Max has extensive research collaborations with government agencies as well as private companies (both US and international), including the US Department of Labor, US Department of Transportation, US Department of Energy, IBM, General Motors, Safeways, HP, German BMW, Bayer, Siemens, Alibaba, Huawei, Foxconn, PetroChina, and JD.com, etc.

Max received the CAREER award from National Science Foundation, the Franz Edelman Finalist Award from INFORMS, won several best paper awards, and was elected Fellow of INFORMS in 2018.

Please email to clare.lau@polyu.edu.hk for enquiries.

All are welcome!