Anran Li

CONTACT Information CUHK Business School, Department of Decisions, Operations and Technology

The Chinese University of Hong Kong

E-mail: anranli@cuhk.edu.hk

RESEARCH INTERESTS

Operations Management, Supply Chain Management, Business Analytics, Revenue Management, E-commerce Applications, Choice Modeling and Assortment Optimization, Approximation Algorithms, Dynamic Programming and Online Algorithm.

ACADEMIC EMPLOYMENT The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong

Associate Professor without Tenure

September 2022

CUHK Business School, Department of Decision Sciences and Managerial Economics

London School of Economics and Political Science, Houghton Street, London, UK

Assistant Professor

August 2018

Department of Management

The Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong

Postdoctoral Researcher

August 2017 - August 2018

Department of Industrial Engineering & Decision Analytics

EDUCATION

Columbia University, New York, NY USA

Ph.D., Operations Research

July 2017

- Advisor: Guillermo Gallego
- Dissertation Topic: "Product Line Design, Pricing and Framing under General Choice Models"

M.S., Industrial Engineering

December 2011

Southwestern University of Finance and Economics, Chengdu, Sichuan China

B.S., Information Management and Information System

July 2010

Publication

Approximation Algorithms for Product Framing and Pricing, 2020, with Guillermo Gallego, Van-Anh Truong and Xinshang Wang, Operations Research. Vol. 68, No. 1.

Reviews and Self-selection Bias with Operational Implications, 2021, with Ningyuan Chen and Kalyan Talluri, *Management Science*. Vol. 67, No. 12.

Assortment Optimization and Pricing under the Multinomial Logit Model with Impatient Customers: Sequential Recommendation and Selection, 2021, with Pin Gao, Yuhang Ma, Ningyuan Chen, Guillermo Gallego, Paat Rusmevichientong and Huseyin Topaloglu, *Operations Research*. Vol. 69, No. 5.

A Random Consideration Set Model for Demand Estimation, Assortment Optimization, and Pricing, with Guillermo Gallego, Operations Research. Accepted.

Estimating demand with unobserved no-purchases on revenue-managed data, with Kalyan Talluri and Muge Tekin, M & SOM. Accepted.

BOOK CHAPTER

Survey: Data-Driven Prediction, Optimization Under Customers' Choice Behavior, with Chenxu Ke and Ruxian Wang, soon to appear at Foundations and Trends in Technology, Information and Operations Management

Paper under Review

Revenue Maximization and Learning in Products Ranking, with Ningyuan Chen and Shuoguang Yang, under Minor Review at Operations Research. Accepted to EC'21.

Online Personalized Resource Allocation with Customer Choice, with Guillermo Gallego, Van-Anh Truong and Xinshang Wang. Invited for resubmission at Operations Research.

Sewage Discharge in a Line: Optimization and Cooperation, with Lindong Liu, Xucheng Liu and Yifu Li, under review at Management Science.

WORKING PAPER

Product Line Design and Pricing under Basic Attraction Model, with Guillermo Gallego and Zhuodong Tang. Selected for MSOM Supply Chain SIG Conference. Soon to be submitted.

Empirical Study of Parsimonious Discrete Choice Models and Implications for Assortment Optimization, with Guillermo Gallego and Pengyu Zuo. Soon to be submitted.

Assortment Optimization with the Product Return/Exchange, with Zhe Liu and Ying Rong. Working paper.

Trip Radar: a Controlled Decentralized System to Enhance Matchmaking in Ride-Sharing, with Hongfan Chen, Zhe Liu and Quan Zhou. Working paper.

Information Design of a Two-Sided Platform. Working paper.

Teaching

London School of Economics and Political Science

- LSE MG 465 Managerial Economics and Operations Management (Sep 2018)
- LSE MG 466 Supply Chain Management (Jan 2019, 2020, 2021,2022)
- LSE MG 401 Operations Management for Management Consultancy (Jan 2020, 2021,2022)

London Business School

• LBS - P224 Demand and Revenue Management (Jul 2020,2022)

The Chinese University of Hong Kong

- CUHK DOTE 6930BA& 6930I Supply Chain & Logistics Management (Dec 2022, 2023,2024)
- CUHK DOTE 4240 Supply Chain & Logistics Analytics (Jan 2023, 2024)
- CUHK DOTE 5310G& 5310GA Global Supply Chain Management (Dec 2023,2024)
- CUHK DOTE 6632 Research Seminar in Operations & SCM (Jan 2023,2024)

Professional Experience

SAS Institute, Cary, NC USA

Research Fellow

May 2015 - August 2015

Designed an algorithm to jointly estimate customer choice model parameters and the arrival rate under censored data. Developed a novel choice model to capture business scenarios.

Hewlett-Packard, Palo Alto, CA USA

Research Analyst Intern

September 2013 - September 2014

Performed a leading role on the projects of forecasting new products' demand and designing optimal product line, which were developed into one paper and one patent. Maintained and improved HP's current assortment optimization system.

Chinasoft International Information Technology, Beijing, China

INVITED TALKS

Revenue Maximization and Learning in Products Ranking

• The Hong Kong Polytechnic University	April 2021
• University of Science and Technology of China	June 2021
• Nanjing University	August 2021
• Southeast University	August 2021
• EURO Pricing and Revenue Management Workshop	August 2021

Reviews and Self-selection Bias with Operational Implications

• LSE internal seminar	Mar 2019
• University of Mannheim	May 2019
• RMP Spotlight conference	Jun 2019
• MSOM conference	Jul 2019

Approximation Algorithms for Product Framing and Pricing

Approximation Algorithms for Product Framing and Pricing	
• Informs International Meeting, Waikoloa, HI	Jun 2016
• MSOM, Auckland, NZ	$\mathrm{Jun}\ 2016$
• Informs Annual Meeting, Nashville, TN	Nov 2016
• Jet.com Internal Meeting, New York, NY	Aug 2017
• the Hong Kong University of Science and Technology	Nov 2017
• London School of Economics and Political Science	Dec 2017
• City University of Hong Kong	Dec 2017
• Chinese University of Hong Kong	Jan 2018
• University of Minnesota	Feb 2018
• Shanghai Jiao Tong University	Apr 2018
• Tsinghua University	May 2018

Attention, Consideration then Selection Choice Model

• Revenue Management and Pricing Conference, Amsterdam, Netherlands	Jun 2017
• Jet.com Internal Meeting, New York, NY	Aug 2017
• Informs International Meeting, Taipei, Taiwan	Jun 2018
• Informs Annual Conference, Pheonix, AZ	Nov 2018

Online Personalized Resource Allocation with Customer Choice

Jun 2016

Product Line Design and Pricing under Logit Model

May 2015
Jun 2015
Jul 2015
Nov 2015
Jun 2016

Estimating demand with unobserved no-purchases on revenue-managed data

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• SAS Internal Meeting, Cary, N	\mathbb{C}	Aug 2015)

• Informs Annual Meeting, Seattle, WA

• MSOM Annual Conference, Munich, Germany

• RMP Annual Conference

Oct 2019 Jun 2022

Jun 2022

Honors and Awards

Hong Kong Research Grants Council, General Research Fund 14506423, PI, HKD 462,238. 01/2024-05/2026

Hong Kong Research Grants Council, General Research Fund 14509124, PI, HKD 529,483. 01/2025-05/2028

CUHK "Improvement on Competitiveness in Hiring New Faculties" Funding Scheme awarded by The Chinese University of Hong Kong with HK\$1,000,000 (Principal Investigator)

LSE Department of Management Top 10 Teachers, LSE, 2020

"Revenue Maximization and Learning in Products Ranking", RIIF Fund awarded by LSE Department of Management with GBP $\pounds 4,000,\ 2021-2022$

"Product Line Design and Pricing under the Basic Attraction Model", RIIF Fund awarded by LSE Department of Management with GBP£10,000, 2020-2021

IEOR Department Fellowship, Columbia University, 2012-2017

SAS Research Fellowship, SAS Institute, May 2015

Frydman Fellowship in IEOR, Columbia University, May 2011

National Scholarship, Ministry of Education, China, May 2010

SKILLS AND PROFESSIONAL SERVICE

Professional Service: Host committee of RMP2023; Ad hoc referee for Management Science, Operations Research, MSOM, POMS, OR Letter and EJOR; Session chair of Informs Annual Meeting; External examiners for UK universities

Computing:

- Programming languages: C, some experience with JAVA.
- Software Skills: R, Matlab, some experience with SAS, Minitab, AMPL, CPLEX.
- Applications: LATEX, SQL, Microsoft Word, Excel, PowerPoint, Access, Visio, Project, Crystal Ball.

Extracurricular Activities: Hiking, cycling and cooking