

YUE ZHANG

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ACADEMIC POSITION

Pennsylvania State University, The Smeal College of Business

University Park, PA

Department of Supply Chain and Information Systems

Assistant Professor of Supply Chain Management

August 2017 - now

Dr. Robert D. Pashek and Dr. John J. Coyle Early Career Professor
in Supply Chain

July 2019 - June 2022

EDUCATION

Duke University, The Fuqua School of Business

Durham, NC

Ph.D. in Operations Management

2017

Dissertation: *Global Supply Chain Management with Advanced Information and Production Technologies*. Advisor: Jing-Sheng (Jeannette) Song

Certificate in College Teaching

DukeExtend 3DP101: 3D Printing at Duke (Certificate ID: ecf4de79d1cd48b7aef4c79181fd6a2f)

The Hong Kong University of Science and Technology, Business School

Hong Kong

M.Phil. in Operations Management

2011

Master Thesis: *A Cost Optimization Approach to Operations Reversal in Supply Chain Management*.

Advisor: Ki Ling Cheung.

Tsinghua University

Beijing

B.S. in Mathematics and Physics

2009

Undergraduate Thesis: *Numerical Comparison of Second-order-cone Programming Relaxation and Semidefinite Programming Relaxation for the Max-Cut Problem*. Advisor: Liping Zhang

PUBLICATIONS

1*. Song, J.-S., Y. Zhang. 2023. Predictive 3D Printing of Spare Parts with IoT. Forthcoming at *Management Science*.

- **MSOM Supply Chain Management SIG, 2022**

- **SSRN Top Ten download list, 2021**

2. Zhang, Y., W. McCall, J.-S. Song. 2023. Case-Digitizing Spare Parts Supply Chain via 3D Printing - An Operational Cost Analysis. Forthcoming at *INFORMS Transactions on Education*.

- **Finalist at 2022 INFORMS Case Competition**

3. Zhang, Y., W. McCall, J.-S. Song. 2023. Case Article-Digitizing Spare Parts Supply Chain via 3D Printing - An Operational Cost Analysis. Forthcoming at *INFORMS Transactions on Education*.

4. Zhang, Y., B. Westerweel, R. Basten, J.-S. Song. 2022. Distributed 3D Printing of Spare Parts via IP Licensing. *Manufacturing & Service Operations Management*. **24**(5) 2685-2702.

- **SSRN Top Ten download list, 2020**

5*. Song, J.-S., Y. Zhang. 2020. Stock or Print? Impact of 3D Printing on Spare Parts Logistics. *Management Science*. **66**(9) 3860–3878.

- **First Prize in 2019 Columbia Business Initiative/CSAMSE Best Paper Award Competition**

6*. Chen, L., J.-S. Song, Y. Zhang. 2017. Serial Inventory Systems with Markov-Modulated Demand: Derivative Bounds, Asymptotic Analysis, and Insights. *Operations Research*. **65**(5) 1231–1249.

- **Third Prize in 2016 Columbia Business Initiative/CSAMSE Best Paper Award Competition**

7*. Cheung, K. L., J.-S. Song, Y. Zhang. 2017. Cost Reduction through Operations Reversal. *European Journal of Operational Research*. **259**(1) 100–112.

WORKING PAPERS

8. Zhang, Y., B. Tomlin. 2023. Renting 3D Printers: Pricing and Technical Service Offerings to Customers of Varying Expertise. Under review.

9*. Lu, L., J. M. Swaminathan, G. Wang, Y. Zhang. 2018. Procurement Contracting under Product Recall Risk.

*Author names are sequenced alphabetically.

WORK IN PROGRESS

10. Blockchain-enabled Responsibility Disclosure (with A. Alptekinoglu)

11. The Role of Companion Diagnostic Testing in Precision Medicine: Optimal Pricing and Insurance Coverage (with E. Goodman and H. Zhao)

12. Time-based versus Use-based Contract in a Capacitated Servicizing System with Product Recovery (with A. Gao[†], S. Bansal, D. Guide)

13. Building Resilience for Crisis Management with 3D printing: Proactive Capacity Planning and Reactive Real-time Printing (with F. Liu)

14. Data-driven Supply Chain Design for Additive Manufacturing (with T. P. Harrison, T. W. Simpson)

[†] Past doctoral student.

TEACHING EXPERIENCE

Pennsylvania State University

SCM 404 - Demand Fulfillment (Instructor)

· Undergraduate Core Course, Springs of 2018 - now

Business 597a (Guest Speaker)

· Fall 2019

TEACHING ASSISTANT EXPERIENCE

Duke University

Review sessions

· Master of Management Studies (MMS) Operations Core Course, Spring (2014, 2016, 2017)

One-on-one tutoring

- Cross Continent MBA Operations Core Course, Summer (2012, 2013)
- Global EMBA Operations Core Course, Spring 2013

Grading

- Weekend EMBA Operations Core Course, Spring (2012, 2013)
- Cross Continent MBA Operations Core Course, Summer 2014
- Master of Management Studies (MMS) Operations Core Course, Spring (2014, 2016, 2017)

The Hong Kong University of Science and Technology

Weekly tutorials & grading

- Undergraduate Core Course: Business Statistics, Fall 2009

PROFESSIONAL EXPERIENCE

Secretary: POMS SCM College (2023-25)

Track Chair: POMS Annual Meeting, May 2023, Orlando, FL

Associate Editor: *Decision Sciences Journal* (2021-24)

Organizer of invited sessions representing POMS SCM College, World P&OM Conference (WP&OM), Barcelona, July 2024 (Postponed)

Editorial Review Board: *Decision Sciences Journal* (2020-23)

Session Chair: *INFORMS*, 2016, 2019-21; *POMS*, 2019, 2024; *CORS-INFORMS International Conference*, 2022

Invited Judge: *MSOM Supply Chain Management SIG 2017-2022*; *Columbia Business Initiative/CSAMSE Best Paper Award Competition 2021*; *Decision Sciences Journal Best Papers for 2021*

Reviewer: *2021 National MBA Sustainability Case Competition*

Ad-hoc Referee: *Computers & Operations Research, Decision Sciences Journal, European Journal of Operational Research, International Journal of Production Economics, Management Science, Manufacturing & Service Operations Management, Naval Research Logistics, Operations Research, Operations Research Letters, Production and Operations Management*

FCCP Consulting Project for a Power Equipment Manufacturer *Jan-May 2014*

- Researched and analyzed the pros and cons of additive manufacturing (AM)
- Identified proper components to adopt the AM technology
- Proposed a dual sourcing mode for implementing AM as a supplement for traditional manufacturing capabilities

HONORS AND AWARDS

Finalist at INFORMS Case Competition	<i>2022</i>
Dr. Robert D. Pashek and Dr. John Coyle Early Career Professorship in Supply Chain	<i>2019 - 2022</i>
First Prize in Columbia Business Initiative/CSAMSE Best Paper Award Competition	<i>2019</i>
<i>M&SOM</i> Meritorious Service Award	<i>2018</i>
<i>M&SOM</i> Meritorious Service Award	<i>2017</i>
Third Prize in Columbia Business Initiative/CSAMSE Best Paper Award Competition	<i>2016</i>
DSI Doctoral Consortium for Post-Proposal Defense Students	<i>2016</i>
INFORMS Doctoral Student Colloquium	<i>2014</i>
Doctoral Fellowship, The Fuqua School of Business, Duke University	<i>Sep 2011 - Aug 2016</i>

M.Phil. Studentship, School of Business and Management, HKUST	<i>Jul 2010 - Jun 2011</i>
Ph.D. Studentship, School of Business and Management, HKUST	<i>Sep 2009 - Jun 2010</i>
Ranked among Top 0.01% in National University Entrance Exam in China	<i>2005</i>

MEDIA MENTION

3D Print or Stock? A Model for Spare Parts. <i>Additive Manufacturing</i> .	<i>Oct 23, 2019</i>
To 3D Print or Not to 3D Print on Demand? Duke Professor Tackles Stock Queries. <i>3D Printing Industry</i> .	<i>Sep 19, 2019</i>
To Stock or Not to Stock? 3D Printing and the Future of Spare Parts. <i>Fuqua Insights</i> .	<i>Sep 16, 2019</i>

DOCTORAL ADVISING

Ph.D. dissertation committee

- Dongsheng Li, The Pennsylvania State University. (Expected graduation: 2024)
- Siyi Huang, The Pennsylvania State University. (Expected graduation: 2024)
- Agnes Yinshi Gao[†], The Pennsylvania State University. (Graduated, Spring 2023)
- Natalia Kosilova, The Pennsylvania State University. (Graduated, Fall 2022)

[†] with collaboration.

MASTER ADVISING

Master of Engineering in Additive Manufacturing and Design

Scholarly Paper Advisor

- Daniel Raimondi, The Pennsylvania State University. (Graduated, Spring 2023)
Scholarly Paper: *Additive Manufacturing and QMS: A PPAP Approach*.

Faculty Reader

- Erik Miller, The Pennsylvania State University. (Graduated, Spring 2023)

COLLEGE SERVICE

AMD(Additive Manufacturing and Design) Graduate Faculty	<i>2018-now</i>
Faculty open office hours, Accepted Student Program	<i>2018-19, 2022-23</i>
Faculty mentor for undergraduate students	<i>2018-now</i>
Faculty Affiliate, Center for the Business of Sustainability	<i>2019-now</i>
OR(Operations Research) faculty	<i>2018-now</i>
Reviewer for Master Thesis	<i>2018-now</i>

DEPARTMENT SERVICE

Faculty recruiting	<i>2017-now</i>
Ph.D. recruiting	<i>2017-now</i>
Ph.D. evaluation	<i>2017-now</i>
Mentoring Ph.D. student TAs	<i>2020-now</i>
· Agnes Yinshi Gao, Archie Ziheng Zhuang, Max Ji	

INVITED TALKS

2023

The Outstanding Young Scholars Forum, The 18th International Conference on Service Systems and Service Management (ICSSSM'23), Nanjing, China
Frontiers of Contemporary Management Research Workshop, **Research Center for Contemporary**

Management (Tsinghua University), Guizhou, China

School of Economics and Management, **University of Chinese Academy of Sciences**

2022

Additive Manufacturing and Design Seminar, **Pennsylvania State University**

Qianhai Data Economy Lecture Series, **The Chinese University of Hong Kong, Shenzhen; Shenzhen Institute of Data Economy**; live-streamed through WeChat Channel, Bilibili, and finance.sina.com.cn with over 370,000 live viewers

2021

Sustainability Research Seminar, Smeal College of Business, **Pennsylvania State University**

Virtual Seminar, Department of Operations, Planning, Accounting and Control, **Eindhoven University of Technology**

2020

Virtual Seminar. College of Business, **Shanghai University of Finance and Economics**

Friday Virtual Seminar (Participating Schools: **Arizona State, Boston Univ, Georgia Tech, Indiana Univ, John Hopkins, Notre Dame, Penn State, Purdue Univ, Texas A&M, UNC-Chapel Hill, Univ of Florida, Univ of South Carolina, Univ of Utah**)

2017

Supply Chain Leaders Forum, Center for Supply Chain Research, **Pennsylvania State University**

School of Business, **University of Wisconsin-Madison**

Joseph M. Katz Graduate School of Business, **University of Pittsburgh**

Smeal College of Business, **Pennsylvania State University**

Lee Kong Chian School of Business, **Singapore Management University**

2016

Guanghua School of Management, **Peking University**

Antai College of Economics and Management, **Shanghai Jiaotong University**

CONFERENCE PRESENTATIONS

CSAMSE: Hefei, China, Jul 2016; Chengdu, China, Jul 2019

DSI: Austin, TX, Nov 2016

INFORMS: Minneapolis, MN, Oct 2013; San Francisco, CA, Nov 2014; Nashville, TN, Nov 2016; Houston, TX, Oct 2017; Seattle, WA, Oct 2019; Virtual, Nov 2020; Virtual, Oct 2021; Indianapolis, IN, Oct 2022; Phoenix, AZ, Oct 2023

ISCOM: Virtual, Dec 2022

M&SOM: Seattle, WA, Jun 2014; Chapel Hill, NC, Jun 2017; Munich, Germany, Jun 2022

POMS: Denver, CO, May 2013; Atlanta, GA, May 2014; Seattle, WA, May 2017; Washington D.C., May 2019; Orlando, FL, May 2023

DOCTORAL LEVEL COURSEWORK

Duke University

Convex Optimization, Foundations in Optimization, Stochastic Models in Operations Research I & II, Econometrics I & II, Stochastic Comparison, Inventory Management, Stochastic Models in Health Care, Empirical Operations Seminar, Information-Driven Supply Chain Management, Marketing Models Seminar, Probability and Measure Theory

HKUST

Advanced Stochastic Models (Dynamic Programming and Queueing Theory), Microeconomics Theory I & II, Information and Incentives, Deterministic Models in Operations Research, Stochastic Models in Operations Research, Business Statistics