Heng Chen

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Education

2016	Ph.D., University of Massachusetts Amherst, *Operations Management*
2011	M.S., University of Massachusetts Amherst, *Applied Mathematics*
2008	B.S., Huazhong University of Science and Technology, *Applied Mathematics*

Academic Appointments

8/2016 – present	University of Nebraska-Lincoln, College of Business, Department of Supply Chain Management and Analytics, *Assistant Professor*
8/2023 – present	Nebraska Transportation Center, *Affiliate Faculty*

Industrial Experience

2008 – 2009	Guangfa Bank, Credit Department, *Economic Analyst*

Research

Articles in refereed journals (names of current or former Ph.D. students are italicized)

J1. Fei Song, Yuhang Xu, Heng Chen, Kunpeng Zhang, "Towards a Customer-Driven Delivery Operation: Predictors of Customer Perception of Online Sellers' Logistics Service Quality," **Transportation Journal**, published online. Methodologies: linear mixed models, machine learning.

J2. *Zhangchen Hu*, Heng Chen, Eric Lyons, Senay Solak, Michael Zink, "Towards Sustainable UAV Operations: Balancing Economic Optimization with Environmental and Social Considerations in Path Planning," **Transportation Research Part E**, 181, p.103314 (2024). Methodologies: stochastic programming, large-scale data processing.

J3. Heng Chen, Jennifer Ryan, "Optimal Specialty Crop Planning Policies with Yield Learning and Forward Contract," **Production and Operations Management**, 32(2), pp.359-378 (2023). Methodologies: dynamic programming, Bayesian learning, large-scale data processing.

J4. Heng Chen, *Zhangchen Hu*, Senay Solak, "Improved Delivery Policies for Future Drone-Based Delivery Systems," **European Journal of Operational Research**, 294 (3), pp. 1181-1201 (2021). Methodologies: dynamic programming, reinforcement learning, heuristics.

J5. Heng Chen, Senay Solak, "Lower Cost Departures for Airlines: Optimal Policies under Departure Metering," **Transportation Research Part C**, 111, pp. 531-546 (2020). Methodologies: dynamic programming, reinforcement learning.

J6. Senay Solak, Heng Chen, "Optimal Metering Point Configurations for Optimized Profile Descent Based Arrival Operations at Airports," **Transportation Science**, 52 (1), pp. 150-170 (2018). Methodologies: stochastic programming, Lagrangian decomposition, heuristics.

J7. Heng Chen, Senay Solak, "Value of Extended Time-Based Metering for Optimized Profile Descent-Based Arrival Operation," **Transportation Research Record**, (2600), pp. 27-38 (2016). Methodologies: stochastic programming, Lagrangian decomposition, large-scale data processing.

J8. Heng Chen, Senay Solak, "Lower Cost Arrivals for Airlines: Optimal Policies for Managing Runway Operations under Optimized Profile Descent," **Production and Operations Management**, 24 (3), pp. 402-420 (2015). Methodologies: dynamic programming, large-scale data processing.

J9. Senay Solak, Erin Baker, Heng Chen, "Convexity Analysis of the Dynamic Integrated Model of Climate and the Economy (DICE)," **Environmental Modeling and Assessment**, 20 (5), pp. 443-451 (2015). Methodologies: convex optimization.

Papers Under Review/Revision

R1. Heng Chen, Ying Zhang, "Outcome-Based Pricing for Precision Agriculture Services." Under revision at **Manufacturing & Service Operations Management**. Methodologies: game theory, heuristics.

Research in progress (names of current or former Ph.D. students are italicized)

W1. "Stochastic Network Design for Blockchain-Based Electric Vehicle Charging Payment Systems," with *Zhangchen Hu*, Jiuh-Biing Sheu, Senay Solak.

W2. "How do Agricultural Producers Fare with Fair Trade?" with Yen-Ting Lin, Adem Orsdemir, Ying Zhang.

W3. "Exploring the Interaction of Digital Decision Support and Financial Risk Sharing in Agricultural Innovation Adoption," with Lingxiu Dong, Jie Ning, Ying Zhang.

W4. "Designing On-Demand Air Corridors for Urban Air Mobility: Integrating Operational Efficiency and Equity Considerations," with Xiaofeng Nie, *Yifan Wu*.

Refereed Conference Proceedings (names of current or former Ph.D. students are italicized)

P1. 2023. Heng Chen, Ying Zhang, "Outcome-Based Pricing for Precision Agriculture Services," *Proceedings of the Manufacturing and Service Operations Management (MSOM) 2023 Conference, June 24-26, Montreal, Canada.*

P2. 2019. *Zhangchen Hu*, Heng Chen, Senaly Solak, "Deliver or Not? Optimal Revenue, Capacity, and Delivery Fee Policies for Future Drone-Based Delivery System," *Proceedings of the 4th North America IEOM Conference, October 23-25, Toronto, Canada.*

P3. 2014. Heng Chen, Senay Solak, "Optimal Metering Policies for Optimized Profile Descent Operations at Airports," *Proceedings of the 6th International Conference on Research in Air Transportation, 2014, May 26-30, Istanbul, Turkey.*

P4. 2012. Heng Chen, Senay Solak, "Runway Operations Planning through Continuous Descent Approach with Sustainability Considerations," *Proceedings of the Manufacturing and Service Operations Management (MSOM) 2012 Conference, June 17-19, New York, NY.*

Teaching Experience

– *Instructor, College of Business, University of Nebraska-Lincoln*

SCMA 439 (Section 001): Global Sourcing and Distribution (developed), Fall and Spring Semesters, 2016 - present (*teaching evaluations consistently above the department and college averages*)

SCMA 331 (Section 001): Operations and Supply Chain Management, Spring Semester, 2017 - present (*teaching evaluations consistently above the department and college averages*)

– *Instructor, Isenberg School of Management, University of Massachusetts Amherst*

OIM 301: Introduction to Operations Management, Fall and Spring Semesters, 2013 - 2016 (selected as a finalist for the 2015 Outstanding Doctoral Student Teaching Award)

– *Teaching Assistant, University of Massachusetts Amherst*

OIM 310: Introduction to Management Science

SCH-MGMT 758: Supply Chain Management (MBA)

SCH-MGMT 797AE: Stochastic Models (MBA/Ph.D.)

MATH 456: Mathematical Modeling

Students Advised

2022 - 2023, Yifan Wu, Department of Industrial and System Engineering, Texas A&M University

2017 - 2023, Zhangchen Hu, Department of Operations & Information Management, UMass Amherst

2018 - 2022, Dean Dustin, Department of Statistics, University of Nebraska-Lincoln

Awards and Honors

2019, Selected Participant, POMS Emerging Scholars, Production and Operations Management Society

2017, Best Dissertation Prize, INFORMS Aviation Applications Section

2016, Best Paper Award in Air Transportation, INFORMS Transportation Science and Logistics Society

2015, Eugene M. Isenberg Scholar Award, University of Massachusetts Amherst

2015, Dissertation Research Award, Isenberg School of Management, University of Massachusetts Amherst

2015, First Place, Central Connecticut Chapter Scholarship Competition, Institute of Industrial Engineers

2015, Selected Participant, Future Faculty Symposium, Material Handling Teachers Institute

2014, Outstanding Doctoral Student Researcher Award, Isenberg School of Management, University of Massachusetts Amherst

2014, Best Student Presentation Award, INFORMS Section of Aviation Applications

2014, Graduate Research Award, Federal Aviation Administration (FAA)

2014, NSF Travel Award, National Science Foundation (NSF)

Professional Service

2023 - 2024, INFORMS Transportation Science and Logistics (TSL) Society, Board Member

2023 - 2024, INFORMS Transportation Science and Logistics (TSL) Society Air Transportation Special Interest Group, Vice Chair/Chair Elect

2023, INFORMS Annual Meeting, Cluster Chair

2020 - 2021, INFORMS Student Affairs Subcommittee, Member

2021, INFORMS Aviation Applications Best Student Presentation Competition Award Committee, Member

2020, INFORMS Aviation Applications Best Student Presentation Competition Award Committee, Member

2019, INFORMS Aviation Applications Best Student Presentation Competition Award Committee, Chair

2018, INFORMS Annual Meeting, Cluster Chair

2017, Council of University Transportation Centers (CUTC) Student Awards, Judge

2016, INFORMS Aviation Applications Best Student Presentation Competition Award Committee, Member

2013 - 2018, INFORMS Section on Aviation Applications, Social Media Coordinator and Webmaster

2012, INFORMS International Conference, Cluster Chair

Journal Reviewer: Operations Research; Production and Operations Management; European Journal of Operational Research; Transportation Science; Transportation Research; Naval Research Logistics; IEEE Transactions on Intelligent Transportation Systems; International Journal of Sustainable Transportation; Journal of the Operational Research Society; Omega

Conference Reviewer: International Conference on Research in Air Transportation, 2018; INFORMS TSL First Triennial Conference, 2017; International Conference on Research in Air Transportation, 2016; The 15th COTA International Conference of Transportation Professionals, 2015; DSI Annual Conference, 2015; IIE Annual Conference, 2015

Session Organizer/Chair: INFORMS Annual Meeting 2021; INFORMS Annual Meeting 2020; INFORMS Annual Meeting 2018; INFORMS Annual Meeting 2016, INFORMS Annual Meeting 2015; INFORMS Annual Meeting 2014; POMS Annual Meeting 2015

Departmental Service at UNL

2019 - present, Department of Supply Chain Management and Analytics Grade Appeals Committee, Member

2017 - 2018, Department of Supply Chain Management and Analytics Faculty Search Committee, Member

2016 - 2017, Department of Supply Chain Management and Analytics Faculty Search Committee, Member

2016 - 2017 , Department of Supply Chain Management and Analytics Professor of Practice Search Committee, Member

College Service at UNL

2022 - present, College Scholarship and Awards Committee, Member