

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 (China), *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 University of Nebraska-Lincoln, Nebraska Transportation Center, *Affiliated Faculty*

INDUSTRIAL EXPERIENCE

- 2008 – 2009 Guangfa Bank (China), Credit Department, *Economic Analyst*

RESEARCH

ARTICLES IN REFEREED JOURNALS (names of current or former Ph.D. students are italicized)

- J1. *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**, accepted (2023).
- J2. 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).
- J3. 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).
- J4. Heng Chen, Senay Solak, “Lower Cost Departures for Airlines: Optimal Policies under Departure Metering,” **Transportation Research Part C**, 111, pp. 531-546 (2020).
- J5. 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).
- J6. 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).
- J7. 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).
- J8. 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).

PAPERS UNDER REVIEW/REVISION

- R1. Fei Song, Yuhang Xu, Heng Chen, Kunpeng Zhang, “Towards a Customer-Driven Delivery Operation: Predictors of Customer Perception of Online Sellers’ Logistics Service Quality.” Under first round major revision at **Transportation Journal**.
- R2. Heng Chen, Ying Zhang, “Outcome-Based Pricing for Precision Agriculture Services.” Under first round review at **Manufacturing & Service Operations Management**.

RESEARCH IN PROGRESS (names of current or former Ph.D. students are italicized)

- W1. *Zhangchen Hu*, Heng Chen, Senay Solak, Jiuh-Biing Sheu, “Stochastic Network Design for Blockchain-Based Electric Vehicle Charging Payment Systems.” Target journal: **Operations Research**.
- W2. *Yifan Wu*, Heng Chen, Xiaofeng Nie, “On-demand Air Corridor Design for Urban Air Mobility with Equity Considerations.” Target journal: **Manufacturing & Service Operations Management**.
- W3. Heng Chen, Ying Zhang, Adem Orsdemir, Yen-Ting Lin, “How do Agricultural Producers Fare with Fair Trade?” Target journal: **Manufacturing & Service Operations Management**.
- W4. Heng Chen, Tulay Flamand, “Optimal Gate Assignments under the Consideration of Airport Retailing.” Target journal: **INFORMS Journal on Computing**.
- W5. Heng Chen, Ying Zhang, “Farmers’ Adoption of High-Tech Agriculture under the Influence of Agricultural Cooperatives.” Target journal: **Production and Operations Management**.

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, Senay 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*.

CONFERENCE PRESENTATIONS AND INVITED SEMINARS

- 2023 Oct INFORMS Annual Meeting (Invited), *How Do Producers Fare with Fair Trade?*
- 2023 Oct INFORMS Annual Meeting (Invited), *Towards Sustainable UAV Operations: Balancing Economic Optimization with Environmental and Social Considerations in Path Planning*
- 2023 Sep Nebraska Transportation Center (Invited), *Towards Sustainable UAV Operations: Balancing Economic Optimization with Environmental and Social Considerations in Path Planning*
- 2023 Jun INFORMS MSOM Conference (Selected), *Outcome-Based Pricing for Precision Agriculture Services*

2023 May POMS Annual Meeting (Invited), *Outcome-Based Pricing for Precision Agriculture Services*

2023 May POMS Annual Meeting (Invited), *Stochastic Network Design for Blockchain-Based Electric Vehicle Charging Payment Systems*

2022 Oct INFORMS Annual Meeting (Invited), *Optimal Pricing Policies for Precision Agriculture Technologies*

2022 Oct INFORMS Annual Meeting (Invited), *UAV Path Planning Under Weather Uncertainty and Environmental Impact Considerations*

2022 Apr POMS Annual Meeting (Invited), *Outcome-Based Pricing for Precision Agriculture in the Presence of Strategic Farmers*

2021 Oct INFORMS Annual Meeting (Invited), *Pricing Strategies for Farmers' Adoption of Precision Agriculture*

2021 Oct INFORMS Annual Meeting (Invited), *UAV Path Planning under Weather Uncertainty and Environmental Impact Considerations*

2020 Nov INFORMS Annual Meeting (Invited), *Farmers' Adoption Of Precision Agriculture - Learning By Doing*

2020 Nov INFORMS Annual Meeting (Invited), *Stochastic Network Design for Bitcoin-Based Electric Vehicle Charging Payment Systems*

2020 Feb UNL Department of Statistics Research Seminar (Invited), *Prediction, Learning, and Decision Making - Two Examples Where Data Enables Better Business Decisions*

2019 Oct INFORMS Annual Meeting (Invited), *Deliver or Not? Optimal Revenue, Capacity, and Delivery Fee Policies for Future Drone-Based Delivery Systems*

2019 Oct INFORMS Annual Meeting (Invited), *Conventional Crops Or Hops? Optimal Crop Planning Policies With Yield Learning And Forward Contract*

2019 May POMS Annual Meeting (Invited), *Deliver or Not? Optimal Revenue, Capacity, and Delivery Fee Policies for Future Drone-Based Delivery System*

2019 May POMS Annual Meeting (Invited), *Conventional Crops or Hops? Optimal Crop Planning and Contract Design Policies with Yield Learning*

2018 Nov INFORMS Annual Meeting (Invited), *Deliver or Not?: Revenue and Capacity Management for Drone-Based Delivery Services*

2018 Nov INFORMS Annual Meeting (Invited), *Optimal Gate Assignment Under the Consideration of Airport Retailing*

2018 May POMS Annual Meeting (Invited), *Revenue and Capacity Management for Future Drone-Based Delivery Services*

2018 May POMS Annual Meeting (Invited), *Strategic Purchasing Decisions for Airline Capacity Expansion under Stochastic Operating Conditions*

2017 Nov INFORMS Annual Meeting (Invited), *Service Improvement and Cost Reduction for Airlines: Optimal Policies for Managing Arrival and Departure Operations under Uncertainty*

2017 Nov INFORMS Annual Meeting (Invited), *Deliver or Not?: Revenue Management for Future Drone-Based Delivery Services*

2017 Jul INFORMS TSL First Triennial Conference (Selected), *Lower Cost Departures for Airlines: Optimal Gate and Metering Area Allocation Policies under Departure Metering Concept*

2017 May POMS Annual Meeting (Invited), *Deliver Or Not? Optimal Revenue and Capacity Management Policies for Future Drone-Based Delivery Services*

2016 Nov DSI Annual Conference (Invited), *Deliver Or Not?: Revenue Management For Future Delivery Service Operations Using Unmanned Aerial Vehicles*

2016 Nov INFORMS Annual Meeting (Invited), *Lower Cost Airport Departure Operations Under the Departure Metering Concept*

2016 Nov INFORMS Annual Meeting (Invited), *Deliver Or Not?: Revenue Management For Future Delivery Service Operations Using Unmanned Aerial Vehicles*

2016 May AGIFORS Airline Operations Conference (Invited), *Lower Cost Airport Departure Operations under Departure Metering Concept*

2015 Nov DSI Annual Conference (Invited), *Exploring Operational Problems for Future Delivery Service Operations using Unmanned Aerial Vehicles*

2015 Nov INFORMS Annual Meeting (Invited), *Value of Using a Departure Metering Area at Airports*

- 2015 Nov INFORMS Annual Meeting (Invited), *Exploring Operational Problems for Future Delivery Service Operations using Unmanned Aerial Vehicles*
- 2015 Jun CORS/INFORMS Joint International Meeting (Invited), *Optimal Gate and Metering Area Allocation Policies under Departure Metering Concept*
- 2015 May IIE Annual Conference (Invited), *Optimal Gate and Metering Area Allocation Policies under Departure Metering Concept*
- 2015 May POMS Annual Meeting (Invited), *Minimizing Airline Delays through Improved Airport Departure Operations*
- 2015 Jan INFORMS Computing Society Conference (Selected), *Integrated Stochastic Optimization over Metering Point Configurations at Airports*
- 2014 Nov INFORMS Annual Meeting (Invited), *Optimal Metering Point Locations for Optimized Profile Descent Operations at Airports*
- 2014 Nov INFORMS Annual Meeting (Invited), *Distance vs. Time Based Metering in Optimized Profile Descent Operations*
- 2014 Jun Huazhong University of Science and Technology Research Seminar (Invited), *Optimal Arrival Operations and Metering Policies with Continuous Descent Approach at Airports*
- 2014 May International Conference on Research in Air Transportation (Invited), *Optimal Metering Policies for Optimized Profile Descent Operations at Airports*
- 2013 Oct INFORMS Annual Meeting (Invited), *Lower Cost Arrival Operations under Optimized Profile Descent*
- 2012 Oct INFORMS Annual Meeting (Invited), *Environmental Value of Optimal Separation in Continuous Descent Arrivals*
- 2012 Jun INFORMS International Meeting (Invited), *Optimal Runway Planning for Continuous Descent Arrivals with Sustainability Considerations*
- 2012 Jun INFORMS MSOM Conference (Selected), *Runway Operations Planning through Continuous Descent Approach with Sustainability Considerations*
- 2011 Nov INFORMS Annual Meeting (Invited), *Optimal Separation Policies for Continuous Descent Arrivals*

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
 SCMA 331 (Section 001): Operations and Supply Chain Management, Spring Semester, 2017 - present
- *Instructor, Isenberg School of Management, University of Massachusetts Amherst*
 OIM 301: Introduction to Operations Management, Fall and Spring Semesters, 2013 - 2016
- *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

PH.D. STUDENTS ADVISED

- 2022 - present, 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

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

PROFESSIONAL SERVICE

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

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

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

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)