

Alexandre Jacquillat

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ACADEMIC EXPERIENCE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Sloan School of Management, Cambridge, MA
Assistant Professor of Operations Research and Statistics 2019 – present

CARNEGIE MELLON UNIVERSITY, Pittsburgh, PA
Heinz College of Information Systems and Public Policy (primary appointment)
Tepper School of Business, Operations Management (minority appointment)
Alfred Blumstein Career Development Assistant Professor of Operations Research 2018 – 2019
Assistant Professor of Operations Research and Public Policy 2016 – 2019

EDUCATION

PHD, MIT, Engineering Systems Division 2015
MASTER OF SCIENCE, MIT, Technology and Policy Program 2012
MASTER OF SCIENCE, École Polytechnique, Applied Mathematics 2012

HONORS AND AWARDS

- Teaching with Digital Technology Award, MIT (2020)
- Outstanding Teacher Award, MIT Sloan School of Management (2020)
- Winner of the INFORMS Transportation Science and Logistics Outstanding Paper award in Air Transportation (2019)
- Winner of the Anna Valicek Award, AGIFORS – Nuno Ribeiro (2018)
- Best Technical Presentation, AGIFORS Annual Symposium (2018)
- Winner of the INFORMS Transportation Science and Logistics Best Paper Prize (2017)
- Best Paper, Finance & Policy, 12th USA/Europe Air Traffic Management R&D Seminar (2016)
- Winner of the INFORMS George B. Dantzig Dissertation Award (2015)
- Winner of the INFORMS Transportation Science and Logistics Dissertation Prize (2015)
- Winner of the Milton Pikarsky Memorial Award for Best PhD Dissertation in transportation science and technology, Council of University Transportation Centers (2015)
- Winner of the Dissertation Award competition, Industry Studies Association (ISA) (2015)
- Winner of the Best Student Presentation Award, INFORMS Aviation Applications Section (2013)
- Winner of the Anna Valicek Award, AGIFORS (2013)
- Graduate Research Award, TRB Airport Cooperative Research Program (2012)
- Presidential Award for Excellence, MIT's Graduate Student Council (2012)
- Medal L.E. Rivot, French Academy of Science (2010) for the best undergraduate contribution in Mathematics and Economics in France
- Outstanding Leadership Award, École Polytechnique (2009)

OTHER PROFESSIONAL EXPERIENCE

MCKINSEY & Co., Boston, MA, Associate	2015 – 2016
BOOZ ALLEN HAMILTON, Boston, MA, Consultant Intern	2012
UNIVERSITÉ DE MONTRÉAL, Montreal, QC, Visiting Researcher Department of Computer Science and Operations Research	2010
AIR FRANCE, Orly, France, External Consultant Department of Operations Research	2009
AURECON, Cape Town, South Africa, Software Development Intern	2009

TEACHING EXPERIENCE

MIT, SLOAN SCHOOL OF MANAGEMENT, Instructor <i>15.071: The Analytics Edge</i> Last student evaluation: 5.0/5.0	2019 – present
MIT, COLLEGE OF ENGINEERING, Guest Lecturer <i>1.200: Transportation Systems Analysis</i> <i>16.763: Air Transportation Operations Research</i>	2019 – present
CARNEGIE MELLON UNIVERSITY, TEPPER SCHOOL OF BUSINESS, Instructor <i>70.462: Stochastic Modeling and Simulation</i> Last student evaluation: 5.0/5.0	2018 – 2019
CARNEGIE MELLON UNIVERSITY, HEINZ COLLEGE, Instructor <i>94.867 12.768 19.867: Decision Analytics for Business and Policy</i> Last student evaluation: 5.0/5.0	2017 – 2019
CARNEGIE MELLON UNIVERSITY, HEINZ COLLEGE, Instructor <i>95.760: Decision-Making under Uncertainty</i> Last student evaluation: 4.78/5.0	2016 – 2019

PUBLICATIONS

1. V. Abhishek, M. Dogan and A. Jacquillat, “Strategic Timing and Dynamic Pricing in On-demand Platforms”, *Management Science*, in press.
2. K. Wang and A. Jacquillat, “Integrated Scheduling Interventions and Flow Management in Air Transportation Networks”, *Operations Research*, in press.
3. L. Marla, A. Jacquillat and J. Lee, “Dynamic Airline Disruption Management under Airport Operating Uncertainty”, *Transportation Science*, 54(4):973-997.
4. K. Wei, V. Vaze and A. Jacquillat, “Airline Timetable Development and Fleet Assignment Incorporating Passenger Choice”, *Transportation Science*, 54(1):139-163, 2020.
5. R. Grahn and A. Jacquillat, “Optimal Escort Dispatch for Airport Travelers with Reduced Mobility”, *Transportation Research Part C: Emerging Technologies*, 111:421-438, 2020.
6. N. Ribeiro, A. Jacquillat, A. Antunes and A. Odoni, “Improving Slot Allocation at Level 3 Airports”, *Transportation Research Part A: Policy and Practice*, 127:32-54, 2019.
7. N. Ribeiro, A. Jacquillat and A. Antunes, “A Large-scale Neighborhood Search Approach to Airport

- Slot Allocation”, *Transportation Science*, 53(6):1772-1797, 2019.
8. A. Jacquillat and V. Vaze, “Interairline Equity in Airport Scheduling Interventions”, *Transportation Science*, 52(4): 941-964, 2018.
 9. N. Ribeiro, A. Jacquillat, A. Antunes, A. Odoni and J. Pita, “An Optimization Approach for Airport Slot Allocation under IATA Guidelines”, *Transportation Research Part B: Methodological*, 112: 132-156, 2018.
 10. A. Jacquillat and A. Odoni, “A Roadmap toward Airport Demand and Capacity Management”, *Transportation Research Part A: Policy and Practice*, 114: 168-185, 2018.
 11. A. Jacquillat and S. Zoepf, “Deployment and Utilization of Plug-in Electric Vehicles in Round-trip Carsharing Systems”, *International Journal of Sustainable Transportation*, 12(2): 75-91, 2018.
 12. A. Jacquillat and A. Odoni, “A New Airport Demand Management Approach based on Targeted Scheduling Interventions”, *Journal of Transport Economics and Policy*, 51(2): 115-138, 2017.
 13. A. Jacquillat, A. Odoni and M. Webster, “Dynamic Control of Runway Configurations and of Arrival and Departure Service Rates at JFK Airport under Stochastic Queue Conditions”, *Transportation Science*, 51(1): 155-176, 2017.
 14. D. Gillen, A. Jacquillat and A. Odoni, “Airport Demand Management: The Operations Research and Economics Perspectives and Potential Synergies”, *Transportation Research Part A: Policy and Practice*, 94: 495-513, 2016.
 15. A. Jacquillat and A. Odoni, “An Integrated Scheduling and Operations Approach to Airport Congestion Mitigation”, *Operations Research*, 63(6): 1390-1410, 2015.
 16. A. Jacquillat and A. Odoni, “Endogenous Control of Arrival and Departure Service Rates in Dynamic and Stochastic Queuing Models with Application at JFK and EWR”, *Transportation Research Part E: Logistics and Transportation Review*, 73: 133-151, 2015.

WORKING PAPERS

1. A. Jacquillat, “Predictive and Prescriptive Analytics toward Passenger-centric Ground Delay Programs”, under review.
2. W. Zhang, A. Jacquillat, K. Wang and S. Wang, “Geometric Optimization for Routing with Floating Targets”, under review.
3. K. Wang, A. Jacquillat, and V. Vaze, “On-demand Urban Aerial Mobility Planning: An Adaptive Discretization Approach”, under review.
4. K. Wang and A. Jacquillat, “From Classification to Optimization: A Scenario-based Robust Optimization Approach”, under review.
5. M. Blanchard, A. Jacquillat and P. Jaillet, “Online Matching on Unknown Bipartite Graphs”, under review.
6. S. Birolini, A. Jacquillat, M. Cattaneo and A. Antunes, “Airline Strategic Planning: Data-driven Optimization with Demand-supply Interactions”, under review.
7. K. Wei, V. Vaze and A. Jacquillat, “Optimal Transit Planning: Interactions with Ride-hailing, Congestion and Passenger Choice”, under review.
8. M. Cohen, A. Jacquillat and J. Serpa, “A Field Experiment on Airline Lead-In Fares”, under review.
9. W. Wang, A. Jacquillat and V. Vaze, “Primary vs. Secondary Infrastructure Capacity Allocation

Mechanisms”, under review.

10. D. Bertsimas, L. Boussioux, R. Cory-Wright, A. Delarue, V. Digalakis, A. Jacquillat, D. Lahlou Kitane, G. Lukin, M. Li, L. Mingardi, O. Nohadani, A. Orfanoudaki, T. Papalexopoulos, I. Paskov, J. Pauphilet, O. Skali Lami, B. Stellato, H. Tazi Bouardi, K. Villalobos Carballo, H. Wiberg, C. Zeng, “From predictions to prescriptions: A data-driven response to COVID-19”, under review.
11. D. Bertsimas, J. Ivanhoe, A. Jacquillat, M. Li, A. Previero, O. Skali Lami and H. Tazi Bouardi, “Optimizing Vaccine Allocation to Combat the COVID-19 Pandemic”, in preparation.
12. W. Zhang, A. Jacquillat, K. Wang and S. Wang, “Solving Large-scale Stochastic Programs with Guarantees through Optimal Scenario Reduction”, in preparation.
13. J. Ivanhoe, A. Jacquillat and J. Knight, “Optimized data sampling for imbalanced classification”, in preparation.

PEER-REVIEWED CONFERENCE PUBLICATIONS

1. A. Jacquillat and V. Vaze, “Balancing Reliability, Efficiency and Equity in Airport Scheduling Interventions”, 12th USA/Europe Air Traffic Management R&D Seminar, Seattle WA, June 2017.
2. A. Jacquillat and V. Sakhrani, “A Joint Planning, Management and Operations Framework for Airport Infrastructure”, 4th International Engineering Systems Symposium (CESUN), Hoboken, NJ, June 2014.
3. P. Bonnefoy, A. Jacquillat and A. Fan, “Investigation of Benefits and Implications from Fleet of Aircraft with Alternative Mission (Range) Specifications”, 8th Triennial Symposium on Transportation Analysis (TRISTAN), San Pedro de Atacama, Chile, June 2013.
4. A. Jacquillat and A. Odoni, “A Study of Airport Congestion at JFK and EWR”, 5th International Conference on Research in Air Transportation (ICRAT), Berkeley, CA, May 2012.

INVITED TALKS

2012. MIT Airline Industry Consortium Annual Meeting
2013. MIT Airline Industry Consortium Annual Meeting; Technology, Management and Policy Consortium
2014. American Airlines; MIT Airline Industry Consortium Executive Education Program; University of British Columbia, Sauder Business School; MIT Airline Industry Consortium Annual Meeting
2015. University of Illinois at Urbana-Champaign, Department of Industrial and Enterprise Systems Engineering; Carnegie Mellon University, Heinz College; Global Challenges to Improve Air Navigation Performance Workshop, Asilomar, CA; University of Washington, Department of Civil and Environmental Engineering; University of Texas at Austin, Operations Research and Industrial Engineering Program; Cornell University, School of Civil and Environmental Engineering; MIT, Department of Aeronautics and Astronautics; International Conference on Aviation and Airport Services, Mexico City
2016. NEXTOR 20th Anniversary Workshop, College Park, MD; 2nd Airport Innovation Accelerator Forum, San Jose, CA; Airport Stakeholders’ Workshop on Airport Capacity Management and Slot Allocation, London, UK
2017. City University of Hong Kong, Department of Systems Engineering and Engineering Management; Hong Kong Polytechnic University, Department of Logistics and Maritime Studies
2018. Pennsylvania State University, Department of Industrial and Manufacturing Engineering; Carnegie Mellon University, Department of Civil and Environmental Engineering

2019. Massachusetts Institute of Technology, Sloan School of Management; University of Pittsburgh, Department of Industrial Engineering

2020. Lancaster University, Management School

PROFESSIONAL AND LEADERSHIP ACTIVITIES

Reviewer for major academic journals, including *Operations Research*, *Management Science*, *Transportation Science*, *Manufacturing and Service Operations Management*, *Production and Operations Management*, *European Journal of Operational Research*, *Naval Research Logistics*, *Transportation Research Part A: Policy and Practice*, *Transportation Research Part B: Methodological*, *Transportation Research Part C: Emerging Technologies*, *Transportation Research Part D: Transport and Environment*, *Transportation Research Part E: Logistics and Transportation Review*, *EURO Journal on Transportation and Logistics*, *Network and Spatial Economics*, *Transportation*, *Project Management Journal*

Memberships: Institute for Operations Research and the Management Sciences (INFORMS), Association of European Operational Research Societies (EURO)

INVITED SPEAKER / PANELIST 2015-present
OECD/ITF Capacity Building through Efficient Use of Existing Airport Infrastructure
Airport Stakeholders' Workshop on Airport Capacity Management and Slot Allocation
2nd Airport Innovation Accelerator Forum
NEXTOR 20th Anniversary Workshop, Federal Aviation Administration
Getting it right at Mexico City's new airport: International conference on aviation and airport services
Global Challenges to Improve Air Navigation Performance Workshop, Federal Aviation Administration

INFORMS, AVIATION APPLICATIONS SECTION 2014-present
Vice chair, 2018-present
Secretary/Treasurer, 2016-2018
Member of the Dissertation Prize Committee, 2016
Member of the Best Student Presentation Competition Committee, 2014, 2016
Session Chair, 2014-present

INDUSTRY STUDIES ASSOCIATION 2016-2018
Member of the Early Career Development Committee

MIT, PARKING & TRANSPORTATION COMMITTEE, Cambridge, MA 2012 – 2014
Graduate Student Representative

MIT, ESD STUDENT SOCIETY, Cambridge, MA 2012 – 2015
President (2013 – 2015)

MIT, TRANSPORTATION CLUB, Cambridge, MA 2012 – 2014

ASSOCIATION DU LOCKED-IN SYNDROME, Paris, France 2007 – 2008
Intern, Community Service

OTHERS

- Languages: English (fluent), French (native), German (intermediate)

- Programming Languages: Julia, R, Python, Matlab, AMPL, GAMS
- Extracurricular activities: Traveling, Cooking, Baking, Tennis