FRANCISCO CASTRO

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INTERESTS

Revenue management, operations management, market design, online marketplaces, ride-hailing platforms

EMPLOYMENT

University of California, Los Angeles, Anderson School of Management Los Angeles, CA

· Assistant Professor 2020 - Present

Uber Technologies, Inc

San Francisco, CA

· Post-doctoral research scientist

· BS in Engineering Sciences, major in Mathematics

2019-2020

2013

EDUCATION

Columbia University, Graduate School of Business PhD in Decision, Risk, and Operations 2019 University of Chile Mathematical Engineering (MS in Applied Mathematics equivalent) Santiago, Chile

RESEARCH PAPERS

Published Work

- 1. Mechanism Design under Approximate Incentive Compatibility. With Santiago Balseiro and Omar Besbes. *Operations Research*, 2022.
- 2. Third-degree Price Discrimination Versus Uniform Pricing. With Dirk Bergemann and Gabriel Weintraub. Games and Economic Behavior, 2022.
- 3. Surge Pricing and its Spatial Supply Response. With Omar Besbes and Ilan Lobel. *Management Science*, 2021.
- 4. Spatial Capacity Planning. With Omar Besbes and Ilan Lobel. Operations Research, 2021.
- 5. The Scope of Sequential Screening with Ex-post Participation Constraints. With Dirk Bergemann and Gabriel Weintraub. *Journal of Economic Theory*, 2020.
- 6. Matching Queues with Reneging: a Product Form Solution. With Hamid Nazerzadeh and Chiwei Yan. Queueing Systems, 2020.

Working Papers

- 1. **Randomized FIFO Mechanisms**. With Hongyao Ma, Hamid Nazerzadeh and Chiwei Yan. Major Revision in *Management Science*.
- 2. Getting Out of Your Own Way: Introducing Autonomous Vehicles on a Ride-Hailing Platform. With Andrew E. Frazelle. Major Revision in *Production and Operations Management*.

- 3. Power-of-d Choices Load Balancing in the Sub-Halfin Whitt Regime. With Sushil Mahavir Varma and Siva Theja Maguluri. ACM SIGMETRICS 2023, conference proceedings. Under review in Mathematics of Operations Research.
- 4. Near Optimal Control in Ride Hailing Platforms with Strategic Servers. With Sushil Mahavir Varma and Siva Theja Maguluri. *ACM SIGMETRICS 2021*, conference proceedings. In preparation for submission.
- 5. Matching Queues, Flexibility and Incentives. With Peter Frazier, Hongyao Ma, Hamid Nazerzadeh and Chiwei Yan. In preparation for submission.
- 6. Autonomous Vehicles in Ride-Hailing and the Threat of Spatial Inequalities. With Jian Gao and Sébastien Martin. In preparation for submission.
- 7. Electric Vehicle Fleet and Charging Infrastructure Planning. With Sushil Mahavir Varma and Siva Theja Maguluri. In preparation for submission.
- 8. Supply Prioritization in Hybrid Marketplaces. With Jian Gao and Sébastien Martin. In preparation for submission.

TEACHING EXPERIENCE

UCLA, Anderson School of Management	Los Angeles, CA
· Operations and Technology Management (core Full-Time MBA), Professor	Winter 2023
· Prescriptive Models & Data Analytics (core MSBA), Professor	Winter 2022, 2023
· Operations and Technology Management (core Full-Employed MBA), Professor	Fall 2020, 2021
· Foundations of Stochastic Modeling (PhD), Professor	Spring 2021
Columbia University, Graduate School of Business	New York, NY
· MBA Business Analytics, Teaching Assistant	2015 – 2018
· MBA Operations Management, Teaching Assistant	2016 – 2018
· PhD Foundations of Optimization, Teaching Assistant	Fall 2015–2017
\cdot PhD Dynamic Programming and Reinforcement Learning, Teaching Assistant	Fall 2017
University of Chile	Santiago, Chile
· Introduction to Calculus, Teaching Assistant	Spring 2009, 2010
· Introduction to Algebra, Teaching Assistant	Spring 2009, 2010
· Single-Variable Calculus, Teaching Assistant	Spring 2011
· Probability and Statistics, Teaching Assistant	2011 – 2013
· Optimization, Teaching Assistant	Fall 2012
\cdot PhD Stochastic Models in Engineering Systems, Teaching Assistant	Fall 2011, 2013

SELECTED AWARDS AND HONORS

- · M&SOM Meritorious Service Award, 2022
- · M&SOM Meritorious Service Award, 2021
- · Deming Doctoral Research Fellowship, The W. Edwards Deming Center, Columbia University, Graduate School of Business, 2018
- · Doctoral Fellowship, Columbia University, Graduate School of Business, 2014–2019
- · Outstanding Student Award, School of Engineering Sciences, University of Chile, 2008 and 2012. Award conferred to the top 10% of students every year

CONFERENCE PRESENTATIONS

Optimal Design of Default Donations Revenue Management & Pricing Conference, Imperial College Electric Vehicle Fleet and Charging Infrastructure Planning IFORS, Santiago, Chile POMS Annual Meeting, Orlando, FL INFORMS Annual Meeting, Indianapolis, IN October 2022

Mechanism Design under Approximate Incentive Compatibility

•	Seventh Workshop on Marketplace Innovation, Virtual	May 2022
	INFORMS Annual Meeting, Anaheim, CA	October 2021
	Revenue Management & Pricing Conference, Spotlight talk, Carey Business School	June 2021
	INFORMS Workshop on Market Design EC'21	July 2021
	The 32nd International Conference on Game Theory	July 2021

Spatial Capacity Planning

· INFORMS Annual Meeting, Seattle, WA	October 2019
· EC'19 Conference, Phoenix, AZ	June 2019
· Fifth Workshop on Marketplace Innovation, Stanford University, Stanford, CA	June 2019
· AGT Mentoring Workshop (AMW) 2019, Phoenix, AZ	June 2019

The Scope of Sequential Screening with Ex-post Participation Constraints

INFORMS Annual Meeting, Phoenix, AZ	November 6, 2018
Revenue Management & Pricing Conference, Smith School of Business, Toronto,	Canada June 2018
INFORMS Annual Meeting, Houston, TX	October 2017
European Meeting of The Econometric Society, Lisboa, Portugal	August 2017
EC'17 Conference, MIT, Cambridge, MA	June 2017
M&SOM Conference, UNC Kenan-Flagler Business School, Chapel Hill, NC	June 2017
Third Workshop on Marketplace Innovation, Stanford University, Stanford, CA	May 2017

Surge Pricing and its Spatial Supply Response

INFORMS Annual Meeting, Phoenix, AZ	Novem	ber 4, 2018
Young Researcher Workshop, ORIE, Cornell University, Ithaca, NY	Oc	etober 2018
M&SOM Conference, Naveen Jindal School of Management, Dallas, TX		July 2018
Revenue Management & Pricing Conference, Smith School of Business, Toronto,	Canada	June 2018
Dynamic Pricing Workshop, University of Chile, Santiago, Chile	Dece	ember 2017
INFORMS Annual Meeting, Houston, TX	Oc	ctober 2017
Revenue Management & Pricing Conference, CWI, Amsterdam, Netherlands		June 2017

INVITED SEMINARS

· The Wharton School, Upenn	November 2022
· Department of Economics, USC	April 2022
· Rotman School of Management	April 2022
· Department of Economics, UCLA	April 2022
· University of O'higgins, Engineering School, Rancagua, Chile	March 2022
· University of Chile, Industrial Engineering Department, Santiago, Chile	January 2021
· Uber Technologies, Inc	April 2020
· Stanford, Graduate School of Business	October 2019

UNIVERSITY SERVICE

Decisions, Operations and Technology Management Area

· PhD Program Admission Committee 2021-Present

· Advancement to Doctoral Candidacy committee member, Irem Akcakus Summer 2021

Member of PhD students thesis committee

· Jian Gao (3rd year)—Advisor 2020-present

PROFESSIONAL ACTIVITIES

· 2024 Revenue Management and Pricing annual conference lead organizer	2022 – 2024
· MSOM SIG Day Reviewer	2022, 2023
· Jeff McGill Student Paper Award Committee	2022
· Program committee EC '22: ACM Conference on Economics and Computation	2022
· Ad-hoc reviewer for Management Science, MSOM, Operations Research,	
and Transportation Science	2019-present
· Judge for the MSOM student paper competition	$2021,\!2023$
· Cluster chair Revenue Management and Pricing for the INFORMS Annual Meeting	2021
· Program committee Workshop on Operations of People-Centric Systems at EC'21	2021
· Judge for the INFORMS TIMES best working paper competition	2020
· Program committee WWW '20: The Web Conference 2020	2020

OTHER EXPERIENCE

Department of Mathematics, University of California, Davis

Davis, CA Winter 2013

Research Internship with Dr. Roger J-B Wets

This research internship focused on the study and implementation of near optimal algorithms for a long-term mining planning optimization problem.

Codelco and Department of Industrial Engineering, University of Chile

Software developer

Santiago, Chile
2010–2013

I worked as a consultant for Coldeco (one of the biggest copper companies in the world) in the development of several heuristics for the short-term extraction of an open-pit mine.

Metro S.A. Santiago, Chile Internship Winter 2010

I developed and designed a software to compute optimal passenger routes in Santiago's subway network, considering transit time and number of connections.	