Mika Sumida

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ACADEMIC APPOINTMENTS	**Marshall School of Business, University of Southern California** Assistant Professor of Data Sciences and Operations　　　　2020-present

EDUCATION

Cornell University
Ph.D., Operations Research　　　　2020
　Advisor: Huseyin Topaloglu
　Dissertation: *Revenue Management Models for Online Retailing*
M.S., Operations Research　　　　2019

Yale University
B.A., Mathematics　　　　2013

PUBLICATIONS

My research focuses on developing efficient, provably-good policies for revenue management and resource allocation problems. I am particularly interested in problems with applications to online marketplaces, delivery systems, and the sharing economy.

Revenue Management with Heterogeneous Resources: Unit Resource Capacities, Advance Bookings, and Itineraries over Time Intervals
P. Rusmevichientong, M. Sumida, H. Topaloglu, and Y. Bai,
Operations Research, 2023.

Revenue-Utility Tradeoff in Assortment Optimization under the Multinomial Logit Model with Totally Unimodular Constraints
M. Sumida, G. Gallego, P. Rusmevichientong, H. Topaloglu, and J. Davis,
Management Science, 67:5, 2845-2869, 2021.

An Approximation Algorithm for Network Revenue Management under Nonstationary Arrivals
Y. Ma, P. Rusmevichientong, M. Sumida, and H. Topaloglu,
Operations Research, 68:3, 655-964, 2020.

Dynamic Assortment Optimization for Reusable Products with Random Usage Durations
P. Rusmevichientong, M. Sumida, and H. Topaloglu,
Management Science, 66:7, 2801-3294, 2020.

A Constant Factor Approximation Algorithm for Capacity Allocation over a Single Flight Leg with Fare-Locking
M. Sumida and H. Topaloglu,
INFORMS Journal on Computing, 31:1, 83-99, 2019.

WORK-IN-PROGRESS

Optimizing and Learning Assortment Decisions in the Presence of Platform Disengagement

M. Sumida and A. Zhou, Working paper,
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4537925.

Dynamic Resource Allocation with Recovering Rewards under Non-Stationary Arrivals
M. Sumida, Working paper,
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5046898.

Loyalty Program Adoption and Multi-channel Revenue Management.
A. Feylessoufi, E. Korpeoglu, and M. Sumida,
In preparation.

HONORS AND AWARDS	NSF Graduate Research Fellowship	2017-2020
	Cornell Graduate Fellowship	2015-2016

TEACHING	*University of Southern California*	
	BUAD 311: Operations Management	Spring 2021-2024

ADVISING

PhD Advising
- Sebnem Demir — 2022-Present
- Julia Balukonis, co-advised with Vishal Gupta — 2020-2021

INDUSTRY EXPERIENCE

Homer Logistics, Operations Research Intern — Fall 2016
Worked on order fulfillment algorithms for a real-time delivery company.

Analytics Operations Engineering, Inc., Analyst — 2013-2015
Applied advanced quantitative methods to solve operations problems for clients. Job involved data analysis, operations modeling, software development, and client management. Clients included a major clothing retailer, faucet manufacturer, and a coffeehouse chain.

INVITED TALKS

2024   *MIT* - Data Science Lab.

2023   *Boston University* - CISE.

2022   *National University of Singapore* - IORA; *University of Toronto* - Rotman Young Scholar Seminar; *University of London* - London Business School.

2021   *Duke University* - Fuqua School of Business.

2020   *Wheaton College* - Math Seminar; *Princeton University* - ORFE; *UC Berkeley* - IEOR; *UCLA* - Anderson School of Management; *USC* - Marshall School of Business; *Stanford University* - MS&E; *Stanford University* - Graduate School of Business; *NYU* - Stern School of Business; *University of Chicago* - Booth School of Business; *Northwestern University* - Kellogg School of Business.

2019   *CU Boulder* - Leeds School of Business; *University of Michigan* - IOE; *MIT* - Sloan School of Business; *UT Austin* - McCombs School of Business.

Conference Talks	**2024** *INFORMS Annual Meeting*, Seattle, WA; *ISMP*, Montreal, CA; *INFORMS Revenue Management and Pricing*, Los Angeles, CA.
	2023 *INFORMS Annual Meeting*, Phoenix, AZ; *INFORMS Revenue Management and Pricing*, London, UK.
	2022 *INFORMS Annual Meeting*, Indianapolis, IN; *MSOM*, Munich, Germany; *INFORMS Revenue Management and Pricing*, Virtual.
	2021 *INFORMS Annual Meeting*, Anaheim, CA.
	2020 *INFORMS Annual Meeting*, Virtual.
	2019 *INFORMS Annual Meeting*, Seattle, WA; *Young Researcher's Workshop*, Ithaca, NY; *YinzOR*, Pittsburgh, PA; *MSOM*, Singapore; *INFORMS Revenue Management and Pricing Conference*, Palo Alto, CA; *POMS*, Washington, DC.
	2018 *INFORMS Annual Meeting*, Phoenix, AZ; *INFORMS Revenue Management and Pricing Conference*, Toronto, OT.
	2017 *INFORMS Annual Meeting*, Houston, TX.

Service

University Service

Seminar co-organizer for Operations Management group within USC Marshall (2020-2023).

Co-organizer, *So Cal Ops Day*, May 2023.

Professional Service

Conference co-organizer, *Combinatorial Optimization for Online Platforms*, 2-day workshop at Banff International Research Station (BIRS), April 2024.

Secretary/Treasurer of INFORMS Revenue Management and Pricing Section (2022-2023).

Judge for RMP Section Jeff McGill Student Paper Award (2023, 2024), Nicholson Student Paper Competition (2022, 2023), and MSOM Student Paper Competition (2022, 2023, 2024).

Reviewer for *Management Science, Operations Research, MSOM, POMS, Stochastic Systems, Mathematics of Operations Research, Transportation Science, Naval Research Logistics*.