# Nur Kaynar

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#### **Education**

#### University of California, Los Angeles

2017-2022 (expected)

Anderson School of Management

Ph.D. in Management (Decisions, Operations, and Technology Management)

Advisors: Auyon Siddiq (UCLA) and Frederick Eberhardt (Caltech)

**Thesis Title**: Data-Driven Optimization to Learn Structural Causal Models

Thesis Committee: Auyon Siddiq (chair), Frederick Eberhardt, Charles Corbett, Elisa Long, Velibor

Mišić.

Bilkent University, Turkey

2015-2017

M.Sc., Industrial Engineering

Bilkent University, Turkey B.Sc., Industrial Engineering

2010-2015

## Research Interests

Data-driven decision-making ■ Causal inference ■ Large-scale optimization ■ Machine learning ■ Econometrics ■ Fairness

#### **Publications**

o Discovering Causal Models with Optimization: Confounders, Cycles, and Feature Selection. with Auyon Siddiq, Frederick Eberhardt.

Under review, Management Science.

Accepted for presentation in the  $16^{th}$  INFORMS Workshop on Data Mining and Decision Analytics. Available online: http://ssrn.com/abstract=3873034

o Estimation of a Non-Parametric Principal-Agent Model with Hidden Actions.

with Auyon Siddiq.

Forthcoming, Management Science.

Available online: https://papers.ssrn.com/abstract=3431383

o Data-driven decision support tools for assessing the vulnerability of community water systems to groundwater contamination in Los Angeles County.

with Kelsea Best, Aisha Najera Chesler, Michelle Miro, and Rachel Kirpes.

Environmental Science & Policy. 393-400, 2021.

o Approaches to analyzing the vulnerability of community water systems to groundwater contamination in Los Angeles County.

with Kelsea Best, Aisha Najera Chesler, Michelle Miro, and Rachel Kirpes.

Research in Mathematics and Public Policy. Springer, Cham, 19-28, 2020.

 Equitable decision making approaches over allocations of multiple benefits to multiple entities with Özlem Karsu.

Omega. 81:85-98, 2017.

o Do extreme productivity requirements in Amazon warehouses deteriorate their workers' mental health?

with Elisa Long.

In preparation.

## Teaching

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

Optimization, Master of Business Analytics Program Teaching Assistant, Winter 2022 (scheduled)

Data and Decisions, Executive MBA Program Teaching Assistant, Summer 2021

Data and Decisions, Fully-Employed MBA Program Teaching Assistant, Fall 2020

Data and Decisions, Executive MBA Program Teaching Assistant, Fall 2020

Optimization, Master of Business Analytics Program Teaching Assistant, Fall 2019

Data and Decisions, Executive MBA Program Teaching Assistant, Summer 2019

Data and Decisions, MBA Program Teaching Assistant, Fall 2018

#### **Conferences and Talks**

#### **Discovering Causal Models with Optimization**

- o 16<sup>th</sup> INFORMS Workshop on Data Mining and Decision Analytics, October 2021 (scheduled)
- o INFORMS Annual Meeting, October 2021 (scheduled)
- o INFORMS Healthcare Conference, July 2021
- o California Institute of Technology, HSS Seminar, July 2021
- o Imperial-LBS-UCL ORMS Seminars, June 2021
- o MSOM Conference, June 2021
- o INFORMS Annual Meeting, November 2020

#### **Learning Hidden Action Principal-Agent Models**

o INFORMS Annual Meeting, October 2019

#### A Spatial Model of the Opioid Epidemic in California

o INFORMS Annual Meeting, October 2018

#### Handling Multi-Dimensional Efficiency and Equity Concerns

- o IMA and OR Society Conference on Mathematics of Operational Research, UK, April 2017
- o National Operations Research and Industrial Engineering Congress, Turkey, June 2016

#### Service

Session co-chair (Causality, Machine Learning, and Optimization, with Auyon Siddiq), INFORMS Annual Meeting, 2021.

Member of the technical program committee and referee for  $20^{th}$  IEEE 2021 International Conference on Machine Learning and Applications (ICMLA, 2021).

Referee for 37<sup>th</sup> Conference on Uncertainty in Artificial Intelligence (UAI, 2021).

Committee member for  $8^{th}$  Causal Inference Workshop at  $37^{th}$  Conference on Uncertainty in Artificial Intelligence (UAI, 2021).

## Workshops

Causality, 2022. Simons Institute for Theory and Computing, University of California, Berkeley (scheduled).

Causal Discovery & Causality-Inspired Machine Learning, 2020. Conference on Neural Information Processing Systems (NeurIPS).

Women in Mathematics and Public Policy, 2019. **Institute for Pure & Applied Mathematics**, University of California, Los Angeles.

#### **Awards and Honors**

Dissertation Year Fellowship. UCLA Graduate Education.	2021-2022
Four year PhD Fellowship. UCLA Anderson School of Management.	2017-2021
Ranked 1st among Masters students of IE Department. Bilkent University.	2016-2017
Dean's Award for Academic Excellence in Masters Studies. Bilkent University.	2016

#### References

#### o Auyon Siddiq

Assistant Professor Anderson School of Management University of California, Los Angeles ☑ auyon.siddiq@anderson.ucla.edu

#### o Elisa Long

Associate Professor Anderson School of Management University of California, Los Angeles ⊠ elisa.long@anderson.ucla.edu

#### o Frederick Eberhardt

Professor
Division of Humanities and Social Sciences
California Institute of Technology
☑ fde@caltech.edu

#### o Felipe Caro

Professor Anderson School of Management University of California, Los Angeles ☑ felipe.caro@anderson.ucla.edu