

# Nur Kaynar

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## Education

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**University of California, Los Angeles**

2017-2022 (expected)

Anderson School of Management

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

Advisor: Auyon Siddiq

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**

2010-2015

B.Sc., Industrial Engineering

## Research Interests

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

## Publications

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- **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<sup>th</sup> INFORMS Workshop on Data Mining and Decision Analytics.  
Available online: <http://ssrn.com/abstract=3873034>
- **Estimation of a Non-Parametric Principal-Agent Model with Hidden Actions.**  
with Auyon Siddiq.  
Major revision, *Management Science*.  
Available online: <https://papers.ssrn.com/abstract=3431383>
- **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.
- **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.
- **Do extreme productivity requirements in Amazon warehouses deteriorate their workers' mental health?**  
with Elisa Long.  
In preparation.

## Teaching

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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

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### Discovering Causal Models with Optimization

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

### Learning Hidden Action Principal-Agent Models

- INFORMS Annual Meeting, October 2019

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

- INFORMS Annual Meeting, October 2018

### Handling Multi-Dimensional Efficiency and Equity Concerns

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

## Service

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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<sup>th</sup> 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<sup>th</sup> Causal Inference Workshop at 37<sup>th</sup> Conference on Uncertainty in Artificial Intelligence (UAI, 2021).

## Workshops

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*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

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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

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### o Auyon Siddiq

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### o Frederick Eberhardt

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Division of Humanities and Social Sciences  
California Institute of Technology  
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### o Elisa Long

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### o Felipe Caro

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