

Kevin O'Connor

🌐 kevinocconnor.co

✉ oconnor.kevin.ant@gmail.com

🌐 oconnor-kevin

EDUCATION

University of North Carolina, Chapel Hill
Ph.D. in Statistics and Operations Research
Advised by Andrew B. Nobel and Kevin McGoff

Chapel Hill, NC
2017 – 2021

University of North Carolina, Chapel Hill
M.S. in Statistics and Operations Research

Chapel Hill, NC
2017 – 2020

University of Chicago
B.A. in Physics and Statistics

Chicago, IL
2012 – 2016

RESEARCH INTERESTS

optimal transport, mathematical finance, stochastic processes, statistical machine learning

PUBLICATIONS

Minji Kim, **Kevin O'Connor**, Vlasdas Pipiras, and Themistoklis Sapsis. Sampling low-fidelity outputs for estimation of high-fidelity density and its tails. *SIAM/ASA Journal on Uncertainty Quantification*, 2024.

Bongsoo Yi, **Kevin O'Connor**, Kevin McGoff, and Andrew B. Nobel. Alignment and comparison of directed networks via transition couplings of random walks. *Journal of the Royal Statistical Society Series B: Statistical Methodology*, 2024.

Kevin O'Connor, Kevin McGoff, and Andrew B. Nobel. Estimation of stationary optimal transport plans. *Information and Inference*, 2024.

Kevin O'Connor, Kevin McGoff, and Andrew B. Nobel. Optimal transport for stationary Markov chains via policy iteration. *Journal of Machine Learning Research*, 2022.

Christopher Bender[†], **Kevin O'Connor**[†], Yang Li, Juan Jose Garcia, Manzil Zaheer, and Junier Oliva. Exchangeable generative modeling with flow scans. *AAAI Conference on Artificial Intelligence*, 2020.

[†]denotes equal contribution

PROFESSIONAL EXPERIENCE

Quantitative Researcher
Optiver

Chicago, IL
2022 – Present

Quantitative Research Intern
Optiver

Chicago, IL
2021

Data and Policy Analyst
Acumen, LLC

Burlingame, CA
2016 – 2017

PROGRAMMING LANGUAGES

C, L^AT_EX, Python

SOFTWARE PACKAGES

Primary developer: OTC (Matlab), Graph0TC (Matlab)

Contributed: flowscan (Python/Tensorflow), Differential-Correlation-Mining (R)

AWARDS and FUNDING

SAMSI Research Fellow (<i>Declined</i>)	2022
Funded Participant at MSRI Workshop on Optimal Transport	2020
Raj Chandra Bose Graduate Student Travel Award	2020
BD2K Funded Fellow	2018 – 2019
Odyssey Scholar	2012 – 2016
Dean's List	2012 – 2016
Dean's Fund for Student Life Grant Recipient	2013

FUNDED GRANT APPLICATIONS

Inference for Stationary Processes: Optimal Transport and Generalized Bayes	2021
<i>NSF Mathematical Sciences</i>	<i>Co-author</i>
Co-PIs: Andrew B Nobel, Sayan Mukherjee, Kevin McGoff	

PRESENTATIONS

Computation and Consistent Estimation of Stationary OT Plans	Contributed Talk
<i>Dissertation Defense</i>	<i>November 2021</i>
Stationary OT for Markov Chains with Applications to Graph Alignment	Contributed Talk
<i>UNC STOR Graduate Student Seminar</i>	<i>October 2021</i>
Comparison and Alignment of Weighted Networks	Contributed Talk
<i>UNC Computational Medicine, Research in Progress</i>	<i>October 2021</i>
Stationary OT for Markov Chains with Applications to Graph Alignment	Invited Poster
<i>Joint Statistical Meetings, 2021</i>	<i>August 2021</i>
Optimal Transport for Stationary Markov Chains via Policy Iteration	Contributed Talk
<i>UNC Charlotte October Math Day Symposium, 2020</i>	<i>October 2020</i>
Optimal Transport for Stationary Markov Chains via Policy Iteration	Contributed Talk
<i>UNC STOR Graduate Student Seminar</i>	<i>September 2020</i>
Optimal Transport for Stationary Markov Chains	Contributed Poster
<i>Joint Statistical Meetings, 2020</i>	<i>August 2020</i>
Optimal Transport for Stationary Markov Chains	Invited Talk
<i>SIAM Annual Meeting, 2020</i>	<i>July 2020</i>

WORKSHOP PUBLICATIONS

Christopher Bender[†], Kevin O'Connor[†], Yang Li, Juan Jose Garcia, Manzil Zaheer, and Junier Oliva. Exchangeable generative modeling with flow scans. *NeurIPS Workshop on Sets and Partitions*, 2019.

[†]denotes equal contribution

TEACHING EXPERIENCE

STOR 565: Machine Learning (Instructional Assistant) Chapel Hill, NC
University of North Carolina, Chapel Hill 2021

STOR 320: Introduction to Data Science (Instructional Assistant) Chapel Hill, NC
University of North Carolina, Chapel Hill 2020

STOR 155: Data Models and Inference (Instructional Assistant) Chapel Hill, NC
University of North Carolina, Chapel Hill 2017 – 2018

PROFESSIONAL ACTIVITIES

Editorial board reviewer for *Journal of Machine Learning Research* 2020-Present
Referee for *Journal of Machine Learning Research* 2 times

PROFESSIONAL MEMBERSHIPS

American Statistical Association, Student Member 2019 – 2021
Institute of Mathematical Statistics, Student Member 2018 – 2021