Kevin O'Connor

🔗 kevinoconnor.co   ✉ oconnor.kevin.ant@gmail.com   ⌗ oconnor-kevin

EDUCATION

University of North Carolina, Chapel Hill   **Chapel Hill, NC**
Ph.D. in Statistics and Operations Research   *2017 – 2021*
Advised by Andrew B. Nobel and Kevin McGoff

University of North Carolina, Chapel Hill   **Chapel Hill, NC**
M.S. in Statistics and Operations Research   *2017 – 2020*

University of Chicago   **Chicago, IL**
B.A. in Physics and Statistics   *2012 – 2016*

RESEARCH INTERESTS

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

PUBLICATIONS

Minji Kim, **Kevin O'Connor**, Vladas Pipiras, and Themistoklis Sapsis. Sampling low-fidelity outputs for estimation of high-fidelity density and its tails. *Submitted*.

Bongsoo Yi, **Kevin O'Connor**, Kevin McGoff, and Andrew B. Nobel. Alignment and comparison of directed networks via transition couplings of random walks. *Submitted*.

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   **Chicago, IL**
Optiver   *2022 – Present*

Quantitative Research Intern   **Chicago, IL**
Optiver   *2021*

Data and Policy Analyst   **Burlingame, CA**
Acumen, LLC   *2016 – 2017*

PROGRAMMING LANGUAGES

C, LaTeX, Python

SOFTWARE PACKAGES

Primary developer: `OTC` (Matlab), `GraphOTC` (Matlab)
Contributed: `flowscan` (Python/Tensorflow), `Differential-Correlation-Mining` (R)

AWARDS and FUNDING

SAMSI Research Fellow (*Declined*)	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**
NSF Mathematical Sciences   *Co-author*
Co-PIs: Andrew B Nobel, Sayan Mukherjee, Kevin McGoff

PRESENTATIONS

Computation and Consistent Estimation of Stationary OT Plans   **Contributed Talk**
Dissertation Defense   *November 2021*

Stationary OT for Markov Chains with Applications to Graph Alignment   **Contributed Talk**
UNC STOR Graduate Student Seminar   *October 2021*

Comparison and Alignment of Weighted Networks   **Contributed Talk**
UNC Computational Medicine, Research in Progress   *October 2021*

Stationary OT for Markov Chains with Applications to Graph Alignment   **Invited Poster**
Joint Statistical Meetings, 2021   *August 2021*

Optimal Transport for Stationary Markov Chains via Policy Iteration   **Contributed Talk**
UNC Charlotte October Math Day Symposium, 2020   *October 2020*

Optimal Transport for Stationary Markov Chains via Policy Iteration   **Contributed Talk**
UNC STOR Graduate Student Seminar   *September 2020*

Optimal Transport for Stationary Markov Chains   **Contributed Poster**
Joint Statistical Meetings, 2020   *August 2020*

Optimal Transport for Stationary Markov Chains   **Invited Talk**
SIAM Annual Meeting, 2020   *July 2020*

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.

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*