

Stanford



Omer Reingold

Rajeev Motwani Professor of Computer Science

Bio

ACADEMIC APPOINTMENTS

- Professor, Computer Science

LINKS

- My homepage: <https://omereingold.wordpress.com/>

Teaching

COURSES

2025-26

- Algorithmic Fairness: CS 256 (Aut)
- Departmental Lecture Series: CS 300 (Aut)
- Playback Theater: CS 83N (Aut)

2024-25

- Departmental Lecture Series: CS 300 (Aut)
- Introduction to the Theory of Computation: CS 154 (Aut)
- Playback Theater: CS 83N (Aut)

2023-24

- Algorithmic Fairness: CS 256 (Win)
- Departmental Lecture Series: CS 300 (Aut)
- Introduction to the Theory of Computation: CS 154 (Aut)
- Playback Theater: CS 83N (Win)

2022-23

- Algorithmic Fairness: CS 256 (Win)
- Departmental Lecture Series: CS 300 (Aut)
- Introduction to the Theory of Computation: CS 154 (Aut)
- Playback Theater: CS 83N (Win)

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Lee Cohen

Master's Program Advisor

Nikash Chhadia, Eitan Green, Kyle Hu, Emiyare Ikwut-Ukwa, Onyinyechi Okoye, Josh Sanyal, Tomer Sedan, Emma Wang, Alan Zhang

Doctoral (Program)

Sílvia Casacuberta Puig, Jabari Hastings, Charlotte Peale

Publications

PUBLICATIONS

- **Dissenting Explanations: Leveraging Disagreement to Reduce Model Overreliance**
Reingold, O., Shen, J., Talati, A.
edited by Wooldridge, M., Dy, J., Natarajan, S.
ASSOC ADVANCEMENT ARTIFICIAL INTELLIGENCE.2024: 21537-21544
- **Oracle Efficient Online Multicalibration and Omniprediction**
Garg, S., Jung, C., Reingold, O., Roth, A.
edited by Woodruff, D. P.
SIAM.2024: 2725-2792
- **Swap Agnostic Learning, or Characterizing Omniprediction via Multicalibration**
Gopalan, P., Kim, M. P., Reingold, O.
edited by Oh, A., Neumann, T., Globerson, A., Saenko, K., Hardt, M., Levine, S.
NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2023
- **Universal adaptability: Target-independent inference that competes with propensity scoring.** *Proceedings of the National Academy of Sciences of the United States of America*
Kim, M. P., Kern, C., Goldwasser, S., Kreuter, F., Reingold, O.
1800; 119 (4)
- **Deterministic Approximation of Random Walks in Small Space** *THEORY OF COMPUTING*
Murtagh, J., Reingold, O., Sidford, A., Vadhan, S.
2021; 17
- **Robust Mean Estimation on Highly Incomplete Data with Arbitrary Outliers**
Hu, L., Reingold, O.
edited by Banerjee, A., Fukumizu, K.
MICROTOME PUBLISHING.2021
- **Outcome Indistinguishability**
Dwork, C., Kim, M. P., Reingold, O., Rothblum, G. N., Yona, G.
edited by Khuller, S., Williams, V. V.
ASSOC COMPUTING MACHINERY.2021: 1095-1108
- **DERANDOMIZATION BEYOND CONNECTIVITY: UNDIRECTED LAPLACIAN SYSTEMS IN NEARLY LOGARITHMIC SPACE** *SIAM JOURNAL ON COMPUTING*
Murtagh, J., Reingold, O., Sidford, A., Vadhan, S.
2021; 50 (6): 1892-1922
- **CONSTANT-ROUND INTERACTIVE PROOFS FOR DELEGATING COMPUTATION** *SIAM JOURNAL ON COMPUTING*
Reingold, O., Rothblum, G. N., Rothblum, R. D.
2021; 50 (3)
- **Inaccessible Entropy II: IE Functions and Universal One-Way Hashing** *THEORY OF COMPUTING*
Haitner, I., Holenstein, T., Reingold, O., Vadhan, S., Wee, H.
2020; 16

- **Through the Lens of a Passionate Theoretician** *COMMUNICATIONS OF THE ACM*
Reingold, O.
2020; 63 (3): 25–27
- **Learning from Outcomes: Evidence-Based Rankings**
Dwork, C., Kim, M. P., Reingold, O., Rothblum, G. N., Yona, G., IEEE
IEEE COMPUTER SOC.2019: 106–25
- **Tracking and Improving Information in the Service of Fairness**
Garg, S., Kim, M. P., Reingold, O., Assoc Comp Machinery
ASSOC COMPUTING MACHINERY.2019: 809–24
- **Pseudorandom Generators for Width-3 Branching Programs**
Meka, R., Reingold, O., Tal, A.
edited by Charikar, M., Cohen, E.
ASSOC COMPUTING MACHINERY.2019: 626–37
- **Incremental Deterministic Public-Key Encryption** *JOURNAL OF CRYPTOLOGY*
Mironov, I., Pandey, O., Reingold, O., Segev, G.
2018; 31 (1): 134–61
- **Efficient Batch Verification for UP**
Reingold, O., Rothblum, G. N., Rothblum, R. D.
edited by Servedio, R. A.
SCHLOSS DAGSTUHL, LEIBNIZ CENTER INFORMATICS.2018
- **Improved Pseudorandomness for Unordered Branching Programs through Local Monotonicity**
Chattopadhyay, E., Hatami, P., Reingold, O., Tal, A.
edited by Diakonikolas, Kempe, D., Henzinger, M.
ASSOC COMPUTING MACHINERY.2018: 363–75
- **Fairness Through Computationally-Bounded Awareness**
Kim, M. P., Reingold, O., Rothblum, G. N.
edited by Bengio, S., Wallach, H., Larochelle, H., Grauman, K., CesaBianchi, N., Garnett, R.
NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2018
- **Guilt-Free Data Reuse** *COMMUNICATIONS OF THE ACM*
Dwork, C., Feldman, V., Hardt, M., Pitassi, T., Reingold, O., Roth, A.
2017; 60 (4): 86-93
- **Derandomization Beyond Connectivity: Undirected Laplacian Systems in Nearly Logarithmic Space**
Murtagh, J., Reingold, O., Sidford, A., Vadhan, S., IEEE
IEEE.2017: 801–12
- **FINDING COLLISIONS IN INTERACTIVE PROTOCOLS-TIGHT LOWER BOUNDS ON THE ROUND AND COMMUNICATION COMPLEXITIES OF STATISTICALLY HIDING COMMITMENTS** *SIAM JOURNAL ON COMPUTING*
Haitner, I., Hoch, J. J., Reingold, O., Segev, G.
2015; 44 (1): 193-242
- **BALLS AND BINS: SMALLER HASH FAMILIES AND FASTER EVALUATION** *SIAM JOURNAL ON COMPUTING*
Celis, L. E., Reingold, O., Segev, G., Wieder, U.
2013; 42 (3): 1030-1050
- **Breaking generalized Diffie-Hellman modulo a composite is no easier than factoring** *INFORMATION PROCESSING LETTERS*
Biham, E., Boneh, D., Reingold, O.
1999; 70 (2): 83-87