

JOEL A. TROPP

publications

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SUBMITTED FOR PUBLICATION

1. C. Camaño, E. N. Epperly, R. A. Meyer, and J. A. Tropp, “Linear algebra at exponential scale via tensor network dimension reduction.” June 2026.
2. J. A. Tropp, “Universality laws for random matrices via exchangeable counterparts.” Mar. 2026.
3. J. A. Tropp, “Comparison theorems for the extreme eigenvalues of a random symmetric matrix.” Mar. 2026.
4. C. Camaño, E. N. Epperly, R. A. Meyer, and J. A. Tropp, “Faster linear algebra algorithms with structured random matrices.” July 2025.
5. J. A. Tropp and R. J. Webber, “Randomized algorithms for low-rank matrix approximation: Design, analysis, and applications.” Aug. 2023.
6. M. Díaz, E. N. Epperly, Z. Frangella, J. A. Tropp, and R. J. Webber, “Robust, randomized preconditioning for kernel ridge regression.” Apr. 2023.
7. R. Kueng and J. A. Tropp, “Binary component decomposition, Part II.” July 2019.

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10. J. A. Tropp, “An Introduction to Matrix Concentration Inequalities.” *Foundations & Trends in Machine Learning*. Vol. 8, num. 1–2, pp. 1–230, May 2015.

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14. J. A. Tropp, *Probability in High Dimensions: Caltech ACM 217, Winter 2021*. Caltech CMS Lecture Notes 2021-01, Pasadena, 2021.
15. J. A. Tropp, *Randomized Algorithms for Matrix Computations: Caltech ACM 204, Winter 2020*. Caltech CMS Lecture Notes 2020-01, Pasadena, 2020.

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