# Distinct distances with $\ell_p$ metrics

Yago Moreno Alonso - rb18891@bristol.ac.uk
*University of Bristol*

We study Erdős's distinct distances problem under $\ell_p$ metrics with integer $p$. We improve the current best bound for this problem from $\Omega(n^{4/5})$ to $\Omega(n^{6/7-\varepsilon})$, for any $\varepsilon > 0$. We also characterize the sets that span an asymptotically minimal number of distinct distances under the $\ell_1$ and $\ell_\infty$ metrics.

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The authors: Moaaz AlQady (The American University in Cairo), Riley Chabot (Princeton University), William Dudarov (Carleton College), Linus Ge (University of Rochester), Mandar Juvekar (University of Rochester), Srikanth Kundeti (Rutgers University), Neloy Kundu (Lafayette College), Kevin Lu (Georgia Institute of Technology), Yago Moreno (University of Bristol), Sibo Peng (North Carolina State University), Samuel Speas (University of California, Berkeley), Julia Starzycka (University of Illinois at Chicago), Henry Steinthal (Lafayette College), and Anastasiia Vitko (Wesleyan University).

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