

*Department of Mathematics,
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Math 269 - Combinatorics

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Planar point sets determine many pairwise crossing segments

Abstract:

We show that any set of n points in general position in the plane determines $n^{1-o(1)}$ pairwise crossing segments. The best previously known lower bound, $\Omega(\sqrt{n})$ was proved more than 25 years ago by Aronov, Erdős, Goddard, Kleitman, Klugerman, Pach, and Schulman. Our proof is fully constructive, and extends to dense geometric graphs. This is joint work with János Pach and Gábor Tardos.

Host: Andrew Suk

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2:00 PM

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