

CS 536N: Randomized Algorithms
Guest Lecture on Randomized Algorithms in
Computational Geometry
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March 30, 2015

Overview...

Two specific topics:

Low-dimensional linear programming

- ▶ ref: R. Seidel, Small dimensional linear programming and convex hulls made easy, *Discrete and Computational Geometry* 6, 423-434 (1991)

Trapezoidal decompositions, with application to planar point location and polygon triangulation

- ▶ ref: A simple and fast incremental randomized algorithm for computing trapezoidal decompositions and for triangulating polygons, *Computational Geometry: Theory and Applications* 1, 51-64 (1991).