Dobkin Notes

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The Delaunay triangulation of a set of points in the plane is a spanner with spanning ratio $c \leq ((1+\sqrt{5})/2)\pi \approx 5.08$. This was proven in the paper "Delaunay Graphs Are Almost as Good as Complete Graphs" by Dobkin, Friedman, and Supowit [1].

[1] David P. Dobkin, Steven J. Friedman, and Kenneth J. Supowit. Delaunay graphs are almost as good as complete graphs. *Discrete Comput. Geom.*, 5(4):399–407, May 1990

Introduction

Let S be a set of points in the plane and $DT(S)$ be the edges of the Delaunay triangulation of S. Let the path along the Delaunay edges be a *Delaunay path*.

One-Sided Path: The Easy Case

If all edges along the Delaunay path are either all above or all below the line connecting points $a, b \in S$, we say that this is a one-sided path.

The Harder Case

Blah blah blah, blah blah blah blah. Blah blah blah, blah blah blah blah. Blah blah blah, blah blah blah blah.

References

[1] David P. Dobkin, Steven J. Friedman, and Kenneth J. Supowit. Delaunay graphs are almost as good as complete graphs. *Discrete Comput. Geom.*, 5(4):399–407, May 1990.