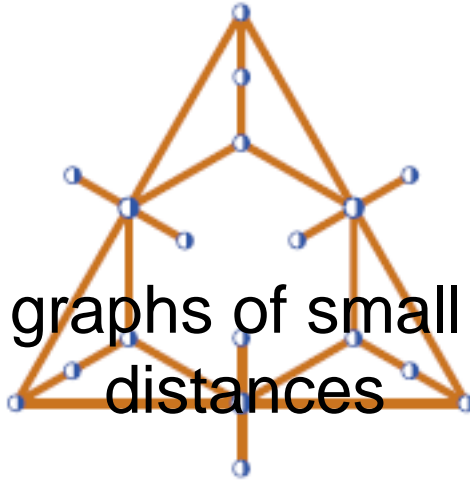


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News on graphs of small and large distances



Content :

Given a set P of n points in a Euclidean space, let $d_1 > d_2 > \dots$ be the distances generated by the set. The graph of k -th largest distances on P is a geometric graph with vertex set P whose edges correspond to the pairs of points at distance d_k (the graph of k -th smallest distances is defined analogously). The best studied instance of this notion are probably so called diameter graphs. We investigated the structure of large-distance graphs and proved several results concerning the number of cliques of certain size. We payed special attention to the case when P is a set of points in the plane in convex position and showed that the number of smallest and second smallest distances in that case is bounded from above by $n+O(1)$. (Joint work with János Pach)

Primary authors : Mr. MORIC, Filip (EPFL)

Co-authors :

Presenter : Mr. MORIC, Filip (EPFL)

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