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Higher Dimensional Representations of Graphs

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ABSTRACT

Graphs are often used to model complex systems and to visualize relationships, and this often involves drawing a graph in the plane. For this, a variety of algorithms and mathematical tools have been used with varying success. We demonstrate why it is often more natural and more meaningful to view higher dimensional representations of graphs. We present some of the theory and problems associated with constructing such representations, and we briefly describe some visualization tools which are now available for experimental research in this area.