



# Topological graph clustering with thin position

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A clustering algorithm partitions a set of data points into smaller sets (clusters) such that each subset is more tightly packed than the whole. Many approaches to clustering translate the vector data into a graph with edges reflecting a distance or similarity metric on the points, then look for highly connected subgraphs. We introduce such an algorithm based on ideas borrowed from the topological notion of thin position for knots and 3-dimensional manifolds.

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