Orderings of undirected graphs

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Abstract

We consider several aspects of the following problem: Given a graph G with a fixed ordering $\leq$ of its vertices (i.e. $(G, \leq)$ find a graph H so the every ordering of vertices of H contains a monotonne copy of graph $(G, \leq)$. This problem was isolated in various contexts e.g. Ramsey theory ("ordering property"), finite model theory ("lifts and shadows"), probability theory. We survey the recent research. Joint work with V. Rodl and G. Kun.