

From graphs to communities, cliques, quasi-cliques and related gangs

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Abstract

The maximum clique (MC) problem in graphs is a paradigmatic combinatorial optimization problem with many relevant applications, including information retrieval, computer vision, and social network analysis. Recent interest includes computational biochemistry, bioinformatics, and genomics. If graphs represent the raw information, clique and quasi-cliques represent efforts to extract human-understandable groupings (clusters) for subsequent processing. The talk reviews the state of the art of the problems, presenting some effective solution methods and open issues.