

Oberseminar Theoretische Informatik

Wintersemester 2007/2008

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Enumerating Isolated Cliques: Algorithms, Implementations, and Experiments

Mo, 14.01.2008 um 14 Uhr (c.t.) im SR 3319 (Ernst-Abbe-Platz 2, 3. Stock).

We do computational studies concerning the enumeration of maximal isolated cliques in graphs. Isolation, as recently introduced, measures the degree of connectedness of the cliques to the rest of the graph. Isolation helps both in getting faster algorithms than for the enumeration of maximal general cliques and in filtering out cliques with special semantics. In addition to a theoretical worst-case speedup for one variant, our experimental studies confirm the relevance of isolation concepts both from the viewpoint of efficient practical algorithms as well as from the viewpoint of determining particularly interesting clique structures. Our experiments cover synthetic graphs ($G_{n,m,p}$ model), financial networks, web graphs, a yeast protein interaction network, and a music artist similarity network.

Internetseite der Veranstaltung:

<http://theinf1.informatik.uni-jena.de/teaching/ws0708/oberseminar-ws0708>