On Cliques in Very Large Graphs

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Abstract

We present an approach to clique computations in very large multi-digraphs. We discuss graph decomposition schemes used to break up the problem into several of manageable sizes. A two stage(out-of-memory and in-memory) greedy randomized adaptive search procedure(GRASP) for finding large cliques in very large sparse graphs is presented. We experiment with this heuristic on real data sets collected in the telecommunications industry. These graphs contain on the order of 100 million vertices.