

# Upper clique transversals in graphs: Complexity and algorithms

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A *clique transversal* in a graph is a set of vertices intersecting all maximal cliques. The problem of determining the minimum size of a clique transversal has received considerable attention in the literature. We initiate the study of the “upper” variant of this parameter, the *upper clique transversal number*, defined as the maximum size of a minimal clique transversal. We investigate this parameter from the algorithmic and complexity points of view, with a focus on various graph classes. We show that the corresponding decision problem is NP-complete in the classes of chordal graphs, chordal bipartite graphs, and line graphs of bipartite graphs, but solvable in linear time in the classes of split graphs and proper interval graphs.

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## References

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