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Clique partitions of chordal graphs. (In English)

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To partition the edges of a chordal graph on n vertices into cliques may require as many as $n^2/6$ cliques; there is an example requiring this many, which is also a threshold graph and a split graph. It is unknown whether this many cliques will always suffice. We are able to show that $(1-c)n^2/4$ cliques will suffice for some $c > 0$.

Classification:
05C35 Extremal problems (graph theory)
05C70 Factorization, etc.

Keywords:
clique covering; clique partition; partition; chordal graph; cliques; threshold graph; split graph