

CHARACTERIZING ATOMS THAT RESULT FROM DECOMPOSITION BY CLIQUE SEPARATORS

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Abstract

A graph is defined to be an atom if no minimal vertex separator induces a complete subgraph; thus, atoms are the graphs that are immune to clique separator decomposition. Atoms are characterized here in two ways: first using generalized vertex elimination schemes, and then as generalizations of 2-connected unichord-free graphs (the graphs in which every minimal vertex separator induces an edgeless subgraph).

Keywords: clique separator, minimal separator, unichord-free graph.

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