

Strong Matching Preclusion of Arrangement Graphs

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The strong matching preclusion number of a graph is the minimum number of vertices and edges whose deletion results in a graph that has neither perfect matchings nor almost-perfect matchings. This is an extension of the matching preclusion problem that was introduced by Park and Ihm. The class of arrangement graphs was introduced as a common generalization of star graphs and alternating group graphs, and to provide an even richer class of interconnection networks. Our goal is to find the strong matching preclusion number of arrangement graphs and to categorize all optimal strong matching preclusion sets of these graphs

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