

عنوان مقاله:

A generalization of Hall's theorem for k -uniform k -partite hypergraphs

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خلاصه مقاله:

In this paper we prove a generalized version of Hall's theorem in graphs, for hypergraphs. More precisely, let \mathcal{H} be a k -uniform k -partite hypergraph with some ordering on parts as V_1, V_2, \dots, V_k such that the subhypergraph generated on $\bigcup_{i=1}^{k-1} V_i$ has a unique perfect matching. In this case, we give a necessary and sufficient condition for having a matching of size $t=|V_1|$ in \mathcal{H} . Some relevant results and counterexamples are given as well.

کلمات کلیدی:

k -uniform k -partite hypergraph, matching, perfect matching, vertex cover, Hall's theorem

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