

A Generalization of Line graphs

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The most familiar derived graphs are line graphs. The line graph $L(G)$ of a graph G is the graph whose vertices can be put in one-to-one correspondence with the edges of G in such a way that two vertices of $L(G)$ are adjacent if and only if the corresponding edges of G are adjacent. We introduce another derived graph, which is a generalization of line graphs. Some recent results and open questions are presented in this area of research.

Keywords: line graph, derived graph, graph structure.