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THE BIPARTITE-SPLITTANCE OF A BIPARTITE GRAPH[1]

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Abstract

A *bipartite-split graph* is a bipartite graph whose vertex set can be partitioned into a complete bipartite set and an independent set. The *bipartite-splittance* of an arbitrary bipartite graph is the minimum number of edges to be added or removed in order to produce a bipartite-split graph. In this paper, we show that the bipartite-splittance of a bipartite graph depends only on the degree sequence pair of the bipartite graph, and an easily computable formula for it is derived. As a corollary, a simple characterization of the degree sequence pair of bipartite-split graphs is also given.

Keywords: degree sequence pair, bipartite-split graph, bipartite-splittance.

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