

## ON PATH-PAIRABILITY IN THE CARTESIAN PRODUCT OF GRAPHS

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### Abstract

We study the inheritance of path-pairability in the Cartesian product of graphs and prove additive and multiplicative inheritance patterns of path-pairability, depending on the number of vertices in the Cartesian product. We present path-pairable graph families that improve the known upper bound on the minimal maximum degree of a path-pairable graph. Further results and open questions about path-pairability are also presented.

**Keywords:** path-pairable graphs, Cartesian product of graphs.

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