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Vertex and edge PI indices of Cartesian product graphs

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The Padmakar-Ivan (PI) index of a graph G is the sum over all edges uv of G of the number of edges which are not equidistant from u and v . In this paper, the notion of vertex PI index of a graph is introduced. We apply this notion to compute an exact expression for the PI index of Cartesian product of graphs. This extends a result by Klavzar [On the PI index: PI-partitions and Cartesian product graphs, *MATCH Commun. Math. Comput. Chem.* 57 (2007) 573-586] for bipartite graphs. Some important properties of vertex PI index are also investigated.

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Note: OCR errors may be found in this Reference List extracted from the full text article. ACM has opted to expose the complete List rather than only correct and linked references.

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