

Hamiltonicity in Cartesian Products of Graphs

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Abstract

You may or may not know that I and two coauthors, Wilfried Imrich of Montanuniversität in Leoben, Austria and Sandi Klavžar of the University of Maribor in Maribor, Slovenia are writing a graph theory book. The book will be published by A.K. Peters sometime in 2008.

The book is intended for a second course in graph theory and is based around the Cartesian product of graphs. About two-thirds of the book deals with some of the classical topics in graph theory (e.g., independence, coloring, subgraphs, domination, planarity, hamiltonicity, etc.) and how these can be treated in the context of Cartesian products. The other one-third covers graph theory topics that are often not studied in a first course (e.g., isometric subgraphs, factorization with respect to the Cartesian product, automorphism groups, etc.).

This talk will discuss the general question of hamiltonicity of a nontrivial Cartesian product.