



Eigenspaces of Graphs

By Dragos M. Cvetkovic, Peter Rowlinson, Slobodan Simic

CAMBRIDGE UNIVERSITY PRESS, United Kingdom, 2008. Paperback. Book Condition: New. Reissue. 230 x 154 mm. Language: English . Brand New Book ***** Print on Demand *****.Current research on the spectral theory of finite graphs may be seen as part of a wider effort to forge closer links between algebra and combinatorics (in particular between linear algebra and graph theory). This book describes how this topic can be strengthened by exploiting properties of the eigenspaces of adjacency matrices associated with a graph. The extension of spectral techniques proceeds at three levels: using eigenvectors associated with an arbitrary labelling of graph vertices, using geometrical invariants of eigenspaces such as graph angles and main angles, and introducing certain kinds of canonical eigenvectors by means of star partitions and star bases. One objective is to describe graphs by algebraic means as far as possible, and the book discusses the Ulam reconstruction conjecture and the graph isomorphism problem in this context. Further problems of graph reconstruction and identification are used to illustrate the importance of graph angles and star partitions in relation to graph structure. Specialists in graph theory will welcome this treatment of important new research.



Reviews

Merely no words to describe. I have got study and i am confident that i am going to planning to go through yet again once again in the foreseeable future. You will like just how the writer compose this publication.

-- Devante Schmitt

Complete guideline! Its this sort of excellent read. I could comprehended every little thing out of this written e publication. Its been designed in an remarkably easy way and it is only right after i finished reading this publication by which really transformed me, affect the way i think.

-- Prof. Shanie Schinner Sr.