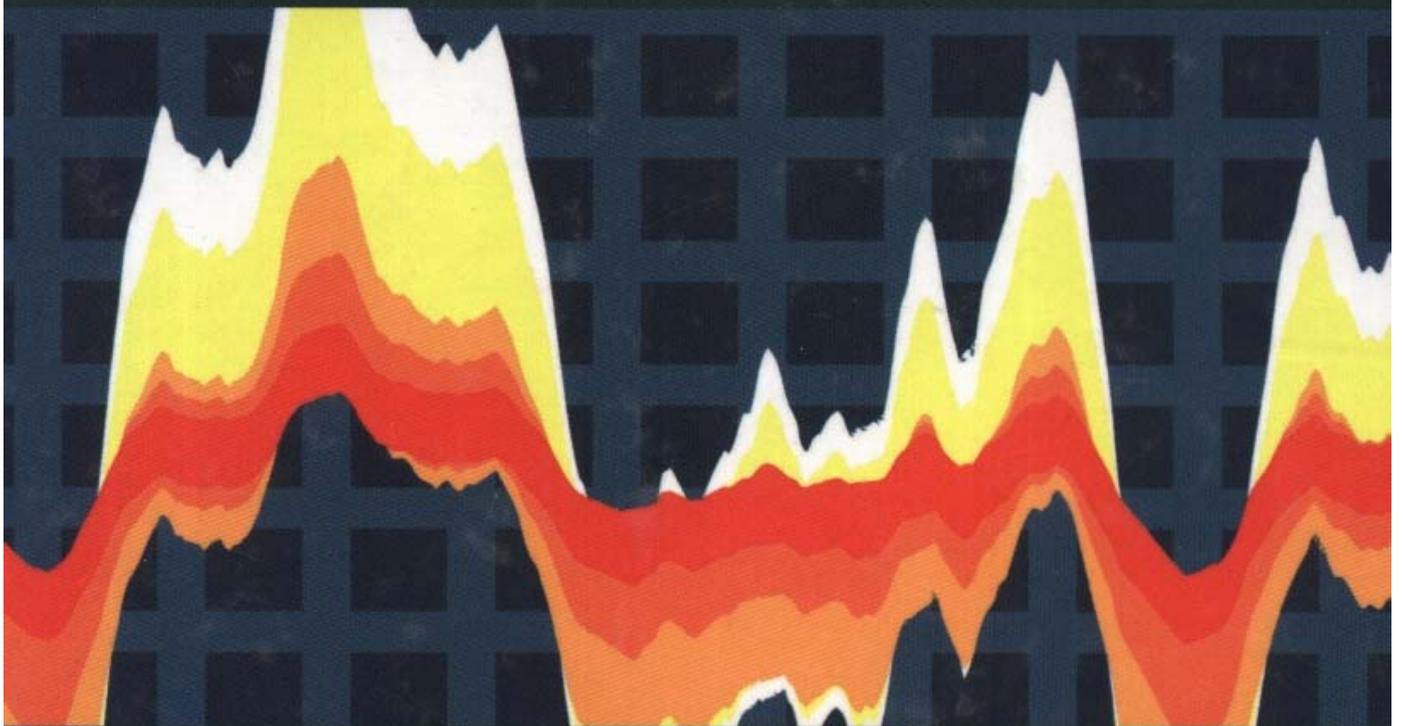


Graph Partitioning

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Graph partitioning is a theoretical subject with applications in many areas, principally numerical analysis, program mapping onto parallel architectures, image segmentation, and VLSI design. Over the last 40 years, the literature has strongly increased and big improvements have been made. In this book we bring together knowledge accumulated over many years to extract both the theoretical foundations of graph partitioning and its main applications.

This book aims at describing the graph partitioning problem by presenting both methodological and applied chapters. There are three parts to the book: the first part presents graph partitioning for numerical applications, the second part presents the optimization view of graph partitioning, and the third part presents other aspects of graph partitioning.

Including new test graphs and test data, this is the first book that really focuses on the graph partitioning optimization problem both theoretically and with its main applications. It is dedicated to researchers and PhD students. Departments of computer sciences, information technology, applied mathematics and electronics would also be interested in this book.

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