

## Connections in Combinatorial Optimization

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- A unified treatment of the development of ideas and methods of the area
- Presents the physics and the background concepts
- Difficult theorems and algorithms are made accessible and easily digestible
- Includes the most up to date results from the field
- Demonstrates several surprising connections between diverse topics of combinatorial optimization, such as connectivity issues of networks and submodular optimization

Graph connectivities and submodular functions are two widely applied and fast developing fields of combinatorial optimization. This book not only includes the most recent results, but also highlights several surprising connections between diverse topics within combinatorial optimization.

It offers a unified treatment of developments in the concepts and algorithmic methods of the area, starting from basic results on graphs, matroids and polyhedral combinatorics, through the advanced topics of connectivity issues of graphs and networks, to the abstract theory and applications of submodular optimization. Difficult theorems and algorithms are made accessible to graduate students in mathematics, computer science, operations research, informatics and communication.

This book is not only a rich source of elegant material for an advanced course in combinatorial optimization, but it also serves as a reference for established researchers by providing efficient tools for applied areas like infocommunication, electric networks and structural rigidity.

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