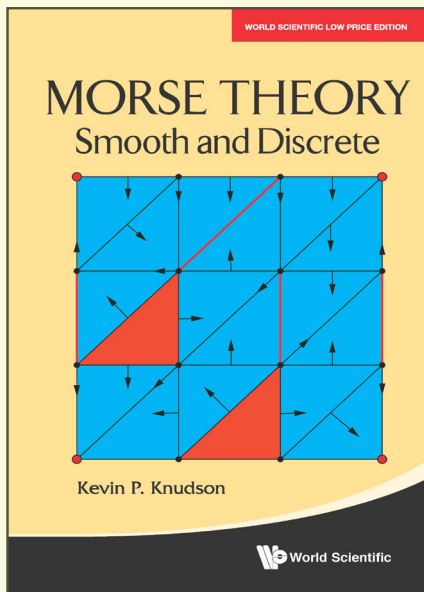


Morse Theory

Smooth and Discrete

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ABOUT THE BOOK

Morse Theory: Smooth and Discrete serves as an introduction to classical smooth Morse theory and to Forman's discrete Morse theory, highlighting the parallels between the two subjects. This is the first time both smooth and discrete Morse theory have been treated in a single volume. This makes the book a valuable resource for students and professionals working in topology and discrete mathematics. With a strong focus on examples, the text is suitable for advanced undergraduates or beginning graduate students.

READERSHIP

Graduate students in geometry and topology.

CONTENTS

Smooth Morse Theory:

- First Steps
- Fundamental Results in Morse Theory
- Topological Consequences
- Homology
- Piecewise Linear Morse Theory

- Algorithms
- Applications

Appendices:

- Smooth Manifolds
- Cell Complexes

Discrete Morse Theory:

- First Steps
- Topological Consequences