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Nota di contenuto	Heat conduction and fourier series -- Convergence of fourier series -- Odds and ends -- Convergence in L2 and L1 -- Some applications -- A note on normalisation.
Sommario/riassunto	Fourier Series is a concise introduction to Fourier series covering history, major themes, theorems, examples, and applications. It can be used to learn this subject, and also to supplement, enhance, and embellish undergraduate courses on mathematical analysis. The book begins with a description of the problem that led Fourier to introduce his famous theory and a brief summary of the rich history of the subject over three centuries. The subject is presented in a way that enables the reader to appreciate how a mathematical theory develops in stages from a practical problem (such as conduction of heat) to an abstract theory dealing with concepts such as sets, functions, infinity, and convergence. The abstract theory provides unforeseen applications in diverse areas. Examples, exercises, and directions for further reading and research are given, along with a chapter that provides material at a more advanced level suitable for graduate students. The author demonstrates applications of the theory as well as a broad range of problems. Exercises of varying levels of difficulty are scattered throughout the book. These will help readers test their understanding of the material.