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Collana	Mathematics and Statistics Series
Disciplina	780
Soggetti	Mathematical analysis Functions of real variables Set theory Sequences (Mathematics) Algebraic topology Fourier analysis Analysis Real Functions Set Theory Sequences, Series, Summability Algebraic Topology Fourier Analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Sets, Functions and Cardinality -- 2. The Real Numbers -- 3. Sequence and Series of Numbers -- 4. Analysis on R -- 5. Topology of the Real Line -- 6. Metric Spaces -- 7. Continuity and Differentiability -- 8. Sequences and Series of Functions -- 9. Lebesgue Integration -- 10. Fourier Series.
Sommario/riassunto	This book serves as a textbook in real analysis. It focuses on the fundamentals of the structural properties of metric spaces and analytical properties of functions defined between such spaces. Topics include sets, functions and cardinality, real numbers, analysis on R, topology of the real line, metric spaces, continuity and differentiability,

sequences and series, Lebesgue integration, and Fourier series. It is primarily focused on the applications of analytical methods to solving partial differential equations rooted in many important problems in mathematics, physics, engineering, and related fields. Both the presentation and treatment of topics are fashioned to meet the expectations of interested readers working in any branch of science and technology. Senior undergraduates in mathematics and engineering are the targeted student readership, and the topical focus with applications to real-world examples will promote higher-level mathematical understanding for undergraduates in sciences and engineering.