

<<数学分析基础/Foundation>>

图书基本信息

书名：<<数学分析基础/Foundations of mathematical analysis>>

13位ISBN编号：9780486421742

10位ISBN编号：0486421740

出版时间：2002-8

出版时间：Oversea Publishing House

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页数：428

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内容概要

This classroom-tested volume offers students of mathematics not only a well-defined view of the basics of modern analysis but also a broad spectrum of the ways in which analysis can be applied to statistics, numerical analysis, Fourier series, differential equations, mathematical analysis, and functional analysis. A self-contained textbook, it offers the background necessary for a firm grasp of the limit concept. (The first seven chapters could constitute a one-semester course on introduction to limits.) Subsequent chapters examine differential calculus of the real line, the Riemann-Stieltjes integral, sequences and series of functions, transcendental functions, inner product spaces and Fourier series, normed linear spaces and the Riesz representation theorem, and the Lebesgue integral. Supplementary materials include an appendix on vector spaces and more than 750 exercises of varying degrees of difficulty (hints and solutions to selected exercises, indicated by an asterisk, appear at the back of the book). Upper-level undergraduate students with a background in calculus will benefit from the teachings of this volume, as will beginning graduate students seeking a firm grounding in modern analysis.

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