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   Titolo   Real Analysis for the Undergraduate : With an Invitation to Functional Analysis / / by Matthew A. Pons

   Pubbl/distr/stampa   New York, NY : , : Springer New York : , : Imprint : Springer, , 2014

   ISBN   1-4614-9638-1

   Edizione   [1st ed. 2014.]

   Descrizione fisica   1 online resource (XVIII, 409 p. 43 illus.) : online resource

   Disciplina   515

   Soggetti   Mathematical analysis
    Analysis (Mathematics)
    Functions of real variables
    Functional analysis
    Analysis
    Real Functions
    Functional Analysis

   Lingua di pubblicazione   Inglese

   Formato   Materiale a stampa

   Livello bibliografico   Monografia

   Note generali   Bibliographic Level Mode of Issuance: Monograph

   Nota di bibliografia   Includes bibliographical references and index.

   Nota di contenuto   The Real Numbers -- Sequences in R -- Numerical Series -- Continuity -- The Derivative -- Sequence and Series of Functions -- The Riemann Integral -- Lebesgue Measure on R -- Lebesgue Integration .

   Sommario/riassunto   This undergraduate textbook introduces students to the basics of real analysis, provides an introduction to more advanced topics including measure theory and Lebesgue integration, and offers an invitation to functional analysis. While these advanced topics are not typically encountered until graduate study, the text is designed for the beginner. The author's engaging style makes advanced topics approachable without sacrificing rigor. The text also consistently encourages the reader to pick up a pencil and take an active part in the learning process. Key features include: - examples to reinforce theory; - thorough explanations preceding definitions, theorems and formal proofs; - illustrations to support intuition; - over 450 exercises designed to develop connections between the concrete and abstract. This text takes students on a journey through the basics of real analysis and provides those who wish to delve deeper the opportunity

to experience mathematical ideas that are beyond the standard undergraduate curriculum.