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**Bruckner, Andrew M.; Bruckner, Judith B.; Thomson, Brian S.**

**Real analysis.** (English)

International Edition. Upper Saddle River, NJ: Prentice-Hall International. xiv, 713 p.  
\$ 46.95 (1997). ISBN 0-13-606708-5/pbk

The authors describe: measures and signed measures, the Lebesgue measure, metric outer measures, Hausdorff measures, integrations (of Newton, Cauchy, Riemann, Lebesgue, Stieltjes and Henstock-Kurzweil), Fubini's theorem, the differentiation of functions,  $VCB_*$  functions, the approximate continuity and the Lebesgue points, the differentiation of measures, the differentiation basis in  $\mathbb{R}^n$ , Radon-Nikodým derivatives in measure spaces, some metric spaces, Banach spaces, the Hahn-Banach theorem, the Baire category theorem, analytic sets, the contraction mapping principle, Ascoli's theorem,  $L^p$  spaces and Fourier series. The exercises sections represent an important part of the book.

The book is suitable for students in mathematics with minimal backgrounds, but also for mathematicians which specialize in Real Analysis, Measure Theory and Functional Analysis.

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*Keywords* : Hilbert spaces; differentiation of functions; differentiation of measures; differentiation basis; Banach spaces; Baire category; analytic sets; Fourier series

*Classification* :

- \*26-01 Textbooks (real functions)
- 28-01 Textbooks (measure and integration)
- 46-01 Textbooks (functional analysis)