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Titolo	Distribution theory [[electronic resource]] : convolution, Fourier transform, and Laplace transform / / Gerrit van Dijk
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ISBN	3-11-029851-1
Descrizione fisica	1 online resource (viii, 105 pages) : illustrations
Collana	De Gruyter Textbook De Gruyter graduate lectures
Classificazione	SK 600
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Soggetti	Theory of distributions (Functional analysis) Convolutions (Mathematics) Fourier transformations Laplace transformation Electronic books.
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Formato	Materiale a stampa
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front matter -- Preface -- Contents -- 1 Introduction -- 2 Definition and First Properties of Distributions -- 3 Differentiating Distributions -- 4 Multiplication and Convergence of Distributions -- 5 Distributions with Compact Support -- 6 Convolution of Distributions -- 7 The Fourier Transform -- 8 The Laplace Transform -- 9 Summable Distributions -- 10 Appendix -- 11 Hints to the Exercises -- References -- Index -- Backmatter
Sommario/riassunto	The theory of distributions has numerous applications and is extensively used in mathematics, physics and engineering. There is however relatively little elementary expository literature on distribution theory. This book is intended as an introduction. Starting with the elementary theory of distributions, it proceeds to convolution products of distributions, Fourier and Laplace transforms, tempered distributions, summable distributions and applications. The theory is illustrated by several examples, mostly beginning with the case of the real line and then followed by examples in higher dimensions. This is a justified and practical approach, it helps the reader to become familiar with the subject. A moderate number of exercises are added.