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Descrizione fisica	1 online resource (273 p.)
Altri autori (Persone)	PartanenJari
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Soggetti	Fourier transform spectroscopy
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Basic definitions -- General properties of Fourier transforms -- Discrete Fourier transform -- Fast Fourier transform (FFT) -- Other integral transforms -- Fourier transform spectroscopy (FTS) -- Nuclear magnetic resonance (NMR) spectrometry -- Ion cyclotron resonance (ICR) mass spectrometry -- Diffraction and Fourier transform -- Uncertainty principle -- Processing of signal and spectrum -- Fourier self-deconvolution (FSD) -- Linear prediction.
Sommario/riassunto	This modern approach to the subject is clearly and logically structured, and gives readers an understanding of the essence of Fourier transforms and their applications. All important aspects are included with respect to their use with optical spectroscopic data. Based on popular lectures, the authors provide the mathematical fundamentals and numerical applications which are essential in practical use. The main part of the book is dedicated to applications of FT in signal processing and spectroscopy, with IR and NIR, NMR and mass

spectrometry dealt with both from a theoretical and practical p
