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Nota di bibliografia	Includes bibliographical references & index.
Nota di contenuto	Preface -- Signals -- The Discrete Fourier Transform -- Properties of the DFT -- Two-Dimensional DFT -- Convolution and Correlation -- Aliasing and Leakage -- Fourier Series -- The Discrete-Time Fourier Transform -- The Fourier Transform -- Fast Computation of the DFT -- A Transform Pairs and Properties -- B Useful Mathematical Formulas -- Bibliography -- Answers to Selected Exercises -- Index.
Sommario/riassunto	This book sheds new light on Transform methods, which dominate the study of linear time-invariant systems in all areas of science and engineering, such as circuit theory, signal/image processing, communications, controls, vibration analysis, remote sensing, biomedical systems, optics and acoustics. It presents Fourier analysis primarily using physical explanations with waveforms and/or examples, only using mathematical formulations to the extent necessary for its practical use. Intended as a textbook for senior undergraduates and graduate level Fourier analysis courses in engineering and science departments, and as a supplementary textbook for a variety of application courses in science and engineering, the book is also a valuable reference for anyone – student or professional – specializing in practical applications of Fourier analysis. The prerequisite for reading this book is a sound understanding of calculus, linear algebra, signals

and systems, and programming at the undergraduate level.
