

1. Record Nr.	UNINA9910983045603321
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Titolo	Fourier Analysis—A Signal Processing Approach // by D. Sundararajan
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	9789819610785 9819610788
Edizione	[2nd ed. 2025.]
Descrizione fisica	1 online resource (545 pages)
Disciplina	004.0151
Soggetti	Computer science - Mathematics Discrete mathematics Computer networks Discrete Mathematics in Computer Science Computer Communication Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1 Signals -- Chapter 2 The Discrete Fourier Transform -- Chapter 3 Properties of the DFT -- Chapter 4 Two-Dimensional DFT -- Chapter 5 Aliasing and Leakage -- Chapter 6 Convolution and Correlation -- Chapter 7 Fourier Series -- Chapter 8 The Discrete-Time Fourier Transform -- Chapter 9 The Fourier Transform -- Chapter 10 Fast Computation of the DFT.
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. Review of last version "The Fourier analysis is mainly presented from a practical point of view, where the mathematical theory is very simplified. This book is mainly written for broad readership of graduate students and researchers in physics, computer science, and engineering with special interest in signal processing. ... Doubtless, this textbook will stimulate the practical education in the Fourier analysis and its applications in signal processing." (Manfred Tasche, zbMATH 1407.94002, 2019).
