1. Record Nr. UNINA9910820918403321 Autore Sundararajan D. Titolo Discrete wavelet transform: a signal processing approach // D. Sundararajan Pubbl/distr/stampa Hoboken, New Jersey:,: Wiley,, 2015 ©2015 **ISBN** 1-119-11311-3 1-119-04607-6 1-119-04608-4 Descrizione fisica 1 online resource (340 p.) Disciplina 515/.2433 Soggetti Wavelets (Mathematics) Signal processing Geometric tomography Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Cover; Title Page; Copyright; Contents; Preface; List of Abbreviations; Chapter 1 Introduction; 1.1 The Organization of This Book; Chapter 2 Signals; 2.1 Signal Classifications; 2.1.1 Periodic and Aperiodic Signals; 2.1.2 Even and Odd Signals; 2.1.3 Energy Signals; 2.1.4 Causal and Noncausal Signals; 2.2 Basic Signals; 2.2.1 Unit-Impulse Signal; 2.2.2 Unit-Step Signal; 2.2.3 The Sinusoid; 2.3 The Sampling Theorem and the Aliasing Effect; 2.4 Signal Operations; 2.4.1 Time Shifting; 2.4.2 Time Reversal; 2.4.3 Time Scaling; 2.5 Summary; Exercises; Chapter 3 Convolution and Correlation 3.1 Convolution 3.1.1 The Linear Convolution; 3.1.2 Properties of Convolution; 3.1.3 The Periodic Convolution; 3.1.4 The Border Problem; 3.1.5 Convolution in the DWT; 3.2 Correlation; 3.2.1 The Linear Correlation: 3.2.2 Correlation and Fourier Analysis: 3.2.3 Correlation in the DWT; 3.3 Summary; Exercises; Chapter 4 Fourier Analysis of Discrete Signals; 4.1 Transform Analysis; 4.2 The Discrete Fourier

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