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Continuous-Time Processes4.1 Introduction; 4.2 Linear Filters; 4.3 Combining Linear Filters; 4.4 Inverting Linear Filters; 4.5 Nonstationary Processes Generated by Time Varying Linear Filters; Appendix to Chapter 4; Chapter 5. Multivariate Spectral Models and Their Applications; 5.1 Introduction; 5.2 The Spectrum of a Multivariate Time Series-Wiener Theory; 5.3 Multivariate Weakly Stationary Stochastic Processes; 5.4 Linear Filters for Multivariate Time Series
5.5 The Bivariate Spectral Parameters, Their Intepretations and Uses5.6 The Multivariate Spectral Parameters, Their Interpretations and Uses; Appendix to Chapter 5; Chapter 6. Digital Filters; 6.1 Introduction; 6.2 General Properties of Digital Filters; 6.3 The Effect of Finite Data Length; 6.4 Digital Filters with Finitely Many Nonzero Weights; 6.5 Digital Filters Obtained by Combining Simple Filters; 6.6 Filters with Gapped Weights and Results Concerning the Filtering of Series with Polynomial Trends; Appendix to Chapter 6
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8.4 Distribution Theory for Multivariate Spectral Estimators with Applications to Statistical Inference

Sommario/riassunto

To tailor time series models to a particular physical problem and to follow the working of various techniques for processing and analyzing data, one must understand the basic theory of spectral (frequency domain) analysis of time series. This classic book provides an introduction to the techniques and theories of spectral analysis of time series. In a discursive style, and with minimal dependence on mathematics, the book presents the geometric structure of spectral analysis. This approach makes possible useful, intuitive interpretations of important time series parameters and provides a unifi