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	Titolo	Copula-Based Markov Models for Time Series : Parametric Inference and Process Control / / by Li-Hsien Sun, Xin-Wei Huang, Mohammed S. Alqawba, Jong-Min Kim, Takeshi Emura
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	Edizione	[1st ed. 2020.]
	Descrizione fisica	1 online resource (XVI, 131 p. 34 illus., 11 illus. in color.)
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	Disciplina	519.535
	Soggetti	Statistics Bioinformatics Statistics in Business, Management, Economics, Finance, Insurance Statistical Theory and Methods
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Chapter 1 Overview of the book with data examples. -Chapter 2 Copula and Markov models -- Chapter 3 Estimation, model diagnosis, and process control under the normal model -- Chapter 4 Estimation under the normal mixture model for financial time series data -- Chapter 5 Bayesian estimation under the t-distribution for financial time series data -- Chapter 6 Control charts of mean and variance using copula Markov SPC and conditional distribution by copula -- Chapter 7 Copula Markov models for count series with excess zeros.
	Sommario/riassunto	This book provides statistical methodologies for time series data, focusing on copula-based Markov chain models for serially correlated time series. It also includes data examples from economics, engineering, finance, sport and other disciplines to illustrate the methods presented. An accessible textbook for students in the fields of economics, management, mathematics, statistics, and related fields wanting to gain insights into the statistical analysis of time series data using copulas, the book also features stand-alone chapters to appeal to researchers. As the subtitle suggests, the book highlights parametric models based on normal distribution, t-distribution, normal mixture distribution, Poisson distribution, and others. Presenting likelihood-

based methods as the main statistical tools for fitting the models, the book details the development of computing techniques to find the maximum likelihood estimator. It also addresses statistical process control, as well as Bayesian and regression methods. Lastly, to help readers analyze their data, it provides computer codes (R codes) for most of the statistical methods.