C. DiMaggio, Columbia University, NY, USA

SAS for Epidemiologists

Applications and Methods

This comprehensive text covers the use of SAS for epidemiology and public health research. Developed with students in mind and from their feedback, the text addresses this material in a straightforward manner with a multitude of examples. It is directly applicable to students and researchers in the fields of public health, biostatistics and epidemiology. Through a “hands on” approach to the use of SAS for a broad number of epidemiologic analyses, readers learn techniques for data entry and cleaning, categorical analysis, ANOVA, and linear regression and much more. Exercises utilizing real-world data sets are featured throughout the book. SAS screen shots demonstrate the steps for successful programming.

SAS (Statistical Analysis System) is an integrated system of software products provided by the SAS institute, which is headquartered in California.

Features

- Teaches readers to understand the concepts of model building within the context of linear regression
- Provides examples to conduct simple and stratified categorical data analyses in SAS and understand the concept of confounding within that context
- Promotes awareness of the role of logistic regression in epidemiology

Contents


Fields of interests

Statistics, general; Statistics for Life Sciences, Medicine, Health Sciences

Target groups

Graduate

Discount group

Professional Non-Medical

B. Grigelsonis, University of Vilnius, Lithuania

Student’s t-Distribution and Related Stochastic Processes

This brief monograph is an in-depth study of the infinite divisibility and self-decomposability properties of central and noncentral Student’s distributions, represented as variance and mean-variance mixtures of multivariate Gaussian distributions with the reciprocal gamma mixing distribution. These results allow us to define and analyse Student-Lévy processes as Thorin subordinated Gaussian Lévy processes.

Features

- In-depth study of the infinite divisibility and self-decomposability properties of central and noncentral Student's distributions
- Extreme value theory for such diffusions is developed
- Flexible and statistically tractable Kolmogorov-Pearson diffusions are described
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Contents

Introduction.- Asymptotics.- Preliminaries of Lévy Processes.- Student-Lévy Processes.- Student OU-type Processes.- Student Diffusion Processes.- Miscellanea.- Bessel Functions.- References.- Index.

Fields of interest

Statistics, general

Target groups

Research

Discount group

Professional Non-Medical

E. Hofmann, P. Beck, University of St.Gallen, Switzerland; E. Füger, Inova Management AG, Wollerau, Switzerland

The Supply Chain Differentiation Guide

Contents


Fields of interests

Statistics for Business/Economics/Mathematical Finance/Insurance; Production/Logistics/Supply Chain Management; Management/Business for Professionals

Target groups

Professional/practitioner

Discount group

Professional Non-Medical

Due October 2012

2013. XVI, 250 p. 115 illus., 83 in color. Hardcover

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$39.95

ISBN 978-3-642-31145-1

Due October 2012

2013. X, 275 p. 143 illus. Hardcover

$139.00

ISBN 978-3-642-31935-8
Smith, Montrone, P. Perchinunno, University of Bari “A. Moro”, Bari, Italy (Eds)

**Statistical Methods for Spatial Planning and Monitoring**

The book aims to investigate methods and techniques for spatial statistical analysis suitable to model spatial information in support of decision systems. Over the last few years there has been a considerable interest in these tools and in the role they can play in spatial planning and environmental modelling.

**Features**
- Direct correspondence between the proposal statistical methods and land related problems
- Illustration of several techniques of spatial data analysis
- Real estate valuation and related support and planning policies

**Contents**
1. Geographical Disparities in Mortality Rates: Spatial Data Mining and Bayesian Hierarchical Modeling.
7. Social Identity as Determinant of Real Estate Economy in Manhattan.

**Fields of interests**
Statistics, general; Computer Imaging, Vision, Pattern Recognition and Graphics

**Target groups**
Research

**Discount group**
Professional Non-Medical

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Pruscha, University of München, Germany

**Statistical Analysis of Climate Series**

Analyzing, Plotting, Modeling, and Predicting with R

The book presents the application of statistical methods to climatological data on temperature and precipitation. It provides specific techniques for treating series of yearly, monthly and daily records. The results’ potential relevance in the climate context is discussed. The methodical tools are taken from time series analysis, from periodogram and wavelet analysis, from correlation and principal component analysis, and from categorical data and event-time analysis. The applied models are - among others - the ARIMA and GARCH model, and inhomogeneous Poisson processes.

**Features**
- Within the context of the general climate discussion, the evaluation of climate series gains growing importance
- Provides application of statistical methods to climatological data
- Techniques for treating series records
- Applying among others ARIMA and GARCH model
- Programs in R and data sets on climate series are provided at the author’s homepage

**Contents**

**Fields of interests**
Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences; Statistical Theory and Methods; Climate Change

**Target groups**
Research

**Discount group**
Professional Non-Medical

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Rajarshi, University of Pune, India

**Statistical Inference for Discrete Time Stochastic**

This work is an overview of statistical inference in stationary, discrete time stochastic processes. Results in the last fifteen years, particularly on non-Gaussian sequences and semi-parametric and non-parametric analysis have been reviewed. The first chapter gives a background of results on martingales and strong mixing sequences, which enable us to generate various classes of CAN estimators in the case of dependent observations. Topics discussed include inference in Markov chains and extension of Markov chains such as Raftery’s Mixture Transition Density model and Hidden Markov chains and extensions of ARMA models with a Binomial, Poisson, Geometric, Exponential, Gamma, Weibull, Lognormal, Inverse Gaussian and Cauchy as stationary distributions.

**Features**
- The book deals with classical as well as most recent developments in the area of inference in discrete time stationary stochastic processes
- Topics discussed include Markov chains, non-Gaussian sequences, estimating function, density estimation and bootstrap for stationary observations and some of the results are available in a book form, most likely, for the first time
- The material is useful to research students and researchers working in the related areas

**Contents**
CAN Estimators from dependent observations.- Markov chains and their extensions.- Non-Gaussian ARMA models.- Estimating Functions.- Estimation of joint densities and conditional expectation.- Bootstrap and other resampling procedures.- Index.

**Fields of interests**
Statistical Theory and Methods; Statistics, general

**Target groups**
Graduate

**Discount group**
Professional Non-Medical