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## Bootstrap Methods

### An Overview

The book provides a compact reference guide to many key aspects of the bootstrap. It explores bootstrap methods, with an introductory chapter that also addresses other resampling methods and their broad range of applications (e.g. time series). The individual chapters focus on estimation, confidence intervals and hypothesis testing.

### Features

► A concise introduction to the bootstrap ► A compact reference guide to many key aspects of the bootstrap ► Reflects selected advances from 2007 to 2011

### Contents

Introduction.- Estimation.- Confidence Intervals.- Hypothesis Testing.- Time Series.- Special Topics.

### Field of interest

Statistics, general

### Target groups

Research

### Product category

Brief

**G. Nicolini**, Università degli Studi di Milano, Italy; **D. Marasini**, Università di Milano Bicocca, Italy; **G. E. Montanari**, Università degli studi di Perugia, Italy; **M. Pratesi**, Università degli studi di Pisa, Italy; **M. G. Ranalli**, Università degli studi di Perugia, Italy; **E. Rocco**, Università degli studi di Firenze, Italy

## Metodi di stima in presenza di errori non campionari

L'opera si propone di illustrare in modo sintetico e sistematico le tecniche di stima dei parametri di una popolazione finita che fanno uso delle informazioni ausiliarie disponibili, al fine di affrontare i problemi che emergono nelle indagini reali.

### Features

► Descrive in modo sintetico ma efficace come fare fronte ai problemi di stima nella realizzazione di indagini a campione e sondaggi ► Tratta in modo sistematico e inedito dell'uso dell'informazione ausiliaria ► Illustra tecniche di impiego del web per la realizzazione di sondaggi e ricerche di mercato ► Fornisce strumenti per la correzione delle stime in presenza di non risposta ► Contiene numerosi esempi che aiutano il lettore a familiarizzare con le tecniche proposte

### Contents

1 Introduzione al campionamento da popolazioni finite.- 2 I campionamenti probabilistici.- 3 L'impiego delle variabili ausiliarie per la costruzione degli stimatori.- 4. Metodi per correggere gli errori di copertura.- 5. Metodi inferenziali in presenza di errori da mancate risposte totali.- 6. Metodi inferenziali in presenza di errori da mancate risposte parziali.

### Fields of interest

Statistical Theory and Methods

### Target groups

Upper undergraduate

### Product category

Monografia

**V. Rousson**, Centre Hospitalier Universitaire Vaudois (CHUV), Epalinges, Suisse

## Statistique appliquée aux sciences de la vie

Cet ouvrage propose une introduction à la statistique sans qu'aucune connaissance préalable ne soit nécessaire. A partir du concept central de « variabilité », l'auteur aborde les notions de distribution, de statistique descriptive, d'estimation et d'intervalle de confiance, de tests paramétriques et non-paramétriques, de calcul de taille d'échantillon, de corrélation et de modélisation statistique (régression linéaire et logistique), tout en recherchant une unité de doctrine.

### Features

► Ouvrage destiné à l'enseignement de la statistique aux étudiants des sciences de la vie (biologie, médecine) ► Vulgarisation des principes essentiels tout en restant très précis sur les détails importants ► Pas de pré-requis nécessaire ► Souci didactique permanent et recherche d'une unité de doctrine et d'un équilibre entre description littéraire des concepts et formalisme mathématique ► Prépare à la lecture d'ouvrages plus pointus

### Contents

Premiers concepts.- Distribution d'une variable.- Estimation.- Intervalle de confiance.- Comparaison de deux distributions.- Principe d'un test statistique.- Tests du khi-deux pour tables de contingence.- Tests statistiques sur la valeur d'un paramètre.- Tests de Wald et de Student.- Calcul de taille d'échantillon.- Tests exacts avec statistique de test discrète.- Analyse de corrélation.- Régression linéaire simple.- Régression linéaire multiple.- Régression avec prédicteurs binaires.- Régression logistique.- Tables.- Bibliographie.

### Fields of interest

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

### Target groups

Upper undergraduate

### Product category

Monographie

Due February 2013

2013. VI, 95 p. 2 illus. (SpringerBriefs in Statistics) Softcover

► \*€ (D) 42,75 | € (A) 43,95 | sFr 53,50

► € 39,95 | £35.99

ISBN 978-3-642-35072-6



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Available

2013. XVI, 226 pagg. (UNITEXT / Collana di Statistica e Probabilità Applicata) Brossura

► \*€ (D) 29,79 | € (A) 30,62 | sFr 37,50

► € 27,84 | £25.99

ISBN 978-88-470-2795-4



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A paraître December 2012

2013. Ca. 335 p. (Statistique et probabilités appliquées) Broché

► approx. \*€ (D) 38,00 | € (A) 39,07 | sFr 47,50

► approx. € 35,51 | £31.99

ISBN 978-2-8178-0393-7



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N. Torelli, University of Trieste, Italy; F. Pesarin, University of Padua, Italy; A. Bar-Hen, Université Paris Descartes, France (Eds)

## Advances in Theoretical and Applied Statistics

### Contents

Part I Statistical Theory: Default Priors Based on Pseudo-likelihoods for the Poisson-GPD Model (Stefano Cabras).- Robustness, Dispersion and Local Functions in Data Depth (Mario Romanazzi and Claudio Agostinelli).- New Distribution-free Plotting Position Through an Approximation to the Beta Median (Pasquale Erto and Antonio Lepore).- On Gaussian Compound Poisson Type Limiting Likelihood Ratio Process (Sergueï Dachian and Ilia Negri).- Archetypal Symbolic Objects (M.R. D'Esposito, F. Palumbo, G. Ragozini).- Lorenz Zonoids and Dependence Measures: A Proposal (Emanuela Raffinetti, Paolo Giudici).- Algebraic Generation of Orthogonal Fractional Factorial Designs (Roberto Fontana and Giovanni Pistone).- Part II Methods for Time Series, Spatial and Functional Data: A Functional Spatio-Temporal Model for Geometric Shape Analysis (Lara Fontanella, Luigi Ippoliti and Pasquale Valentini).- Vector Threshold Moving Average Models: Model Specification and Invertibility (Marcella Niglio, Cosimo Damiano Vitale).- A Regionalization Method for Spatial Functional Data Based on Variogram Models: An Application on Environmental Data (Elvira Romano, Antonio Balzanella, and Rosanna Verde).- Spectral Decomposition of the AR Metric (Maria Iannario and Domenico Piccolo).- Nonlinear Nonstationary Model Building by Genetic Algorithms (Francesco Battaglia and Mattheos K. Protopapas). [...]

### Fields of interest

Statistical Theory and Methods; Statistics for Business/Economics/Mathematical Finance/Insurance; Statistics for Life Sciences, Medicine, Health Sciences

### Target groups

Research

### Product category

Contributed volume

### Due April 2013

2013. Approx. 470 p. (Studies in Theoretical and Applied Statistics / Selected Papers of the Statistical Societies) Hardcover

► approx. \* € (D) 203,29 | € (A) 208,99 | sFr 253,00

► approx. € 189,99 | £171.00

ISBN 978-3-642-35587-5



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Anthony Davison: Bootstrap Methods and their Application, 1. Summary. — Bootstrap: simulation methods for frequentist inference. — Useful when. — standard assumptions invalid (n small, data not normal)