

## TABLE OF CONTENTS

<b>PREFACE .....</b>	v
<b>PROLOGUE</b>	
Issues in Computational Data Analysis	
P.J. Huber .....	3
<b>I. PROGRAMMING ENVIRONMENTS</b>	
Editorial Interface in Statistical Computing and Related Areas	
S. Mustonen .....	17
Inside ESIA: An Open and Self-Consistent Knowledge Based System	
H. Augendre and G. Hatabian .....	33
Linked Views	
A. Benner .....	39
A Consultation System for Statistical Analysis on Hypertool	
A. Hayashi and T. Tarumi .....	43
<b>II. COMPUTATIONAL INFERENCE</b>	
Computer-Intensive Statistical Methods	
A.C. Davison and D.V. Hinkley .....	51
Exact Logistic Regression: Theory, Applications, Software	
C.R. Mehta and N.R. Patel .....	63
Optimal Choice for a Hodges-Lehmann Type Estimator in the Two-Sample Problem with Censoring	
Y. Bassiakos .....	79
Simulation in Extreme-Value Estimation by a Combined S-PLUS and C-Program	
A.L.M. Dekkers .....	85
The Usefulness of Exact Statistical Methods in Equal Employment Litigation	
J.L. Gastwirth and C.R. Mehta .....	91
On Classifier Systems, Disintegrated Representation and Robust Data Mining	
J. Muruzabal .....	97
Variance Reduction for Bernoulli Response Variables	
E. Vegas and J. Ocaña .....	103

**III. PACKAGE DEVELOPMENTS**

Graphical Aids for Nonlinear Regression and Discriminant Analysis M. Hill and L. Engelman .....	111
Intervention Analysis with SPSS/PC+ Trends K. Christof .....	127
A New Windows-Based Statistical Analysis Environment G.C. FitzGerald and T.A. Hurley .....	133
Aspects of the "User Friendliness" of Statistical Software: A Pleading for Software Adaptability G. Held .....	149
Statistics Software vs. Problem Solving T.M. Huber .....	163
S-PLUS Version 3 S.P. Kaluzny and R.D. Martin .....	169
Generalizing GLMs in Genstat G.W. Morgan .....	177
The New Simulation Packages: New Powers Bring New Users B.P. Murphy .....	185
Statistical Packages and Systems Evaluation A. Giusti .....	189
An Environment for Montecarlo Simulation Studies (EMSS) A. Sanchez J. Ocaña and C. Ruiz de Villa .....	195

**IV. EXPERIMENTAL DESIGN**

Generation of Optimal Designs for Nonlinear Models when the Design Points are Incidental Parameters M.P.F. Berger .....	203
I-Optimality Algorithm and Implementation S.B. Crary, L. Hoo and M. Tennenhouse .....	209
Use of a Symbolic Algebra Computer System to Investigate the Properties of Mixture Designs in Orthogonal Blocks A.M. Dean, S.M. Lewis, P. Prescott and N.R. Draper .....	215
A-Optimal Weighing Designs with $n \equiv 3(\text{mod}4)$ and their Information Matrix Form N. Farmakis and M. Georganta .....	221
Quasi-Sequential Procedures for the Calibration Problem C.P. Kitsos .....	227
An Interactive Window-Based Environment for Experimental Design M. Nys, P. Darius and M. Marasinghe .....	233

The Use of Identification Keys and Diagnostic Tables in Statistical Work R.W. Payne .....	239
Construction of a Statistical KBFE for Experimental Design Using the Tools and Techniques Developed in the Focus Project (Esprit II num. 2620) A. Prat, J.M. Catot, J. Lores, J. Galmes, A. Riba and K. Sanjeevan .....	245
MRBP Tests and their Empirical Power Perfomance for Symmetric Kappa Distribution D.S. Tracy and K.A. Khan .....	251
Optimal Experimental Designs in Regression: A Bootstrap Approach J.P. Vila .....	257
KEYFINDER - A Complete Toolkit for Generating Fractional-Replicate and Blocked Factorial Designs P.J. Zemroch .....	263
<b>V. IMAGE PROCESSING AND NEURAL NETWORKS</b>	
ICM for Object Recognition A.J. Baddeley and M.N.M. van Lieshout .....	271
Bootstrapping Blurred and Noisy Data K. Chan and J. Kay .....	287
Multiresolution Reconstruction of a Corrupted Image Using the Wavelet Transform B. Cheng and J. Kay .....	293
Are Artificial Neural Networks a Dangerous Adversary for Statistical Data Analysis? G. Hatabian .....	299
Canonical Correlation Analysis Using a Neural Network J. Kay .....	305
Artificial Neural Networks as Alternatives to Statistical Quality Control Charts in Manufacturing Processes D. Kopcso, L. Pipino and W. Rybolt .....	309
Analytical Analysis of Decentralised Controlled General Data Communication Networks A.T. Othman, K.R. Ku-Mahamud and M.H. Selamat .....	317
<b>VI. META DATA</b>	
Microdata, Macrodata and Metadata D.J. Hand .....	325
Semi-Filled Shells and New Technology of the Subject-Oriented Statistical Expert Systems Construction S. Aivazian .....	341
Conceptual Models for the Choice of a Statistical Analysis Method; a Comparison Between Experts and Non-Experts P. Diesveld, and G.M. van den Berg .....	345

Toward a Formalised Meta-Data Concept Ed. de Feber and P. de Greef .....	351
Semantic Metadata: Query Processing and Data Aggregation K.A. Froeschl .....	357
A System for Production and Analysis of Statistical Reports C. Gibert and M. Marti-Recober .....	363
MetaInformation - Production, Transfer, Consumption, Maintenance in Official Statistics K. Neumann .....	369
An Experimental System for Navigating Statistical Meta-Information - The Meta-Stat Navigator N. Ohsumi .....	375
<b>VII. SURVEY DESIGN</b>	
Data and Meta-Data in the Blaise System M. Schuerhoff .....	383
Sample Size Estimation for Several Trend Tests in the k-Sample Problem L. Hothorn .....	387
A Generic Schema for Survey Processing at IBGE A.P. Guedes and M.S. dos Santos Cabral .....	391
A Tool for the Automatic Generation of Data Editing and Imputation Application for Surveys Processing R.M. Hanono and D.M. Rocha Barbosa .....	395
Tools for Data Entry D.M. van der Sluis .....	401
<b>VIII. DATA BASE</b>	
StEM: A Deductive Query Processor for Statistical Databases C. Basili and L. Meo-Evoli .....	409
VIEWS: A Portable Statistical Database System A.L. Dekker .....	415
Database Management for Notifiable Diseases at the Federal Health Office of Germany J. Eichberg .....	421
Sampling Accounting Populations: A Comparison of Monetary Unit Sampling and Sieve Sampling in Substantive Auditing J.M. Horgan .....	425
<b>Author Index</b> .....	431
<b>Table of Contents of Volume One</b> .....	433
<b>Author Index of Volume One</b> .....	439