

Contents

Preface	i
Invited Papers	1
An Implementation for Regression Quantile Estimation <i>T.W. Yee</i>	3
Computational Methods for Time Series Analysis <i>G. Kitagawa, T. Higuchi, S. Sato</i>	15
Forecasting PC-ARIMA Models for Functional Data <i>M.J. Valderrama, F.A. Ocaña, A.M. Aguilera</i>	25
KyPlot as a Tool for Graphical Data Analysis <i>K. Yoshioka</i>	37
Mice and Elephants Visualization of Internet Traffic <i>J.S. Marron, F. Hernandez-Campos, F.D. Smith</i>	47
Relativity and Resolution for High Dimensional Information Visualization with Generalized Association Plots (GAP) <i>S.-C. Chang, C.-H. Chen, Y.-Y. Chi, C.-W. Ouyoung</i>	55
Supervised Learning from Micro-Array Data <i>T. Hastie, R. Tibshirani, B. Narasimhan, G. Chu</i>	67
Teaching Statistics with Electronic Textbooks <i>J. Symanzik, N. Vukasinovic</i>	79
Trans-Dimensional Markov Chains and their Applications in Statistics <i>S.P. Brooks</i>	91
Full Papers	103
A Bayesian Model for Compositional Data Analysis <i>M.J. Brewer, S. Dunn, C. Soulsby</i>	105
A Comparison of Marginal Likelihood Computation Methods <i>C.S. Bos</i>	111
A Hotelling Test Based on MCD <i>G. Willems, G. Pison, P.J. Rousseeuw, S. van Aelst</i>	117
A Resampling Approach to Cluster Validation <i>V. Roth, M. Braun, J. Buhmann, T. Lange</i>	123
A Selfdocumenting Programming Environment for Weighting <i>W. Grossmann, P. Ofner</i>	129
A State Space Model for Non-Stationary Functional Data <i>M. Ortega-Moreno, M.J. Valderrama, J.C. Ruiz-Molina</i>	135
A Wildlife Simulation Package (WiSP) <i>W. Zucchini, D. Borchers, M. Erdelmeier</i>	141
Algorithmical and Computational Procedures for a Markov Model in Sur- vival Analysis <i>J.E. Ruiz-Castro, R. Pérez-Ocón, D. Montoro-Cazorla</i>	147
An Algorithm for the Construction of Experimental Designs with Fixed and Random Blocks	153

<i>P. Goos, A. N. Donev, M. Vandebroek</i>	
An Algorithm to Estimate Time Varying Parameter SURE Models under Different Type of Restrictions	159
<i>S. Orbe, E. Ferreira, J.M. Rodríguez-Póo</i>	
Analyzing Data with Robust Multivariate Methods and Diagnostic Plots	165
<i>G. Pison, S. van Aelst</i>	
Application of "Aggregated Classifiers" in Survival Time Studies	171
<i>A. Benner</i>	
Application of Hopfield-like Neural Networks to Nonlinear Factorization	177
<i>D. Husek, A. Prolov, H. Rezankova, V. Snasel</i>	
Bagging Tree Classifiers for Glaucoma Diagnosis	183
<i>T. Hothorn, L. Berthold</i>	
Bayesian Automatic Parameter Estimation of Threshold Autoregressive (TAR) Models using Markov Chain Monte Carlo	189
<i>E. Amiri</i>	
Bayesian Semiparametric Seemingly Unrelated Regression	195
<i>S. Lang, S.B. Adebayo, L. Fahrmeir</i>	
Blockmodeling Techniques for Web Mining	201
<i>G. Schoier</i>	
Bootstrapping Threshold Autoregressive Models	207
<i>J. Öhrvik, G. Schoier</i>	
Canonical Variates for Recursive Partitioning in Data Mining	213
<i>C. Cappelli, C. Conversano</i>	
CAnoVa©: a Software for Causal Modeling	219
<i>O. Wüthrich-Martone, C. Nachtigall, M. Müller, R. Steyer</i>	
Classification Based on the Support Vector Machine, Regression Depth, and Discriminant Analysis	225
<i>A. Christmann, P. Fischer, T. Joachims</i>	
Clockwise Bivariate Boxplots	231
<i>A. Corbellini</i>	
Combining Graphical Models and PCA for Statistical Process Control	237
<i>R. Fried, U. Gather, M. Imhoff, M. Keller, V. Lanius</i>	
Comparing Two Partitions: Some Proposals and Experiments	243
<i>G. Saporta, G. Youness</i>	
Comparison of Nested Simulated Annealing and Reactive Tabu Search for Efficient Experimental Designs with Correlated Data	249
<i>N. Coombes, R. Payne, P. Lisboa</i>	
Computational Connections between Robust Multivariate Analysis and Clustering	255
<i>D.M. Roche, D.L. Woodruff</i>	
Computer Intensive Methods for Mixed-effects Models	261
<i>J.A. Sanchez, J. Ocaña</i>	
Construction of T-optimum Designs for Multiresponse Dynamic Models	267
<i>B. Bogacka, D. Uciński</i>	
Data Compression and Selection of Variables, with Respect to Exact In- ference	273
<i>J. Läuter, S. Kropf</i>	
Data Extraction from Dense 3-D Surface Models	279
<i>M. Bock, A. Bowman, J. Bowman, P. Siebert</i>	
Detection of Locally Stationary Segments in Time Series	285
<i>U. Ligges, P. Hasse-Becker, C. Weihs</i>	
Detection of Outliers in Multivariate Data: A Method Based on Clustering and Robust Estimators	291
<i>C.M. Santos-Pereira, A.M. Pires</i>	
Development of a Framework for Analyzing Process Monitoring Data with Applications to Semiconductor Manufacturing Process	297
<i>Y.-H. Yoon, Y.-S. Kim, S.-J. Kim, B.-J. Yum</i>	
Different Ways to See a Tree – KLIMIT	303
<i>S. Urbanek</i>	

e-stat: A Web-based Learning Environment in Applied Statistics	309
<i>E. Cramer, K. Cramer, U. Kamps</i>	
e-stat: Automatic Evaluation of Online Exercises	315
<i>K. Bartels</i>	
e-stat: Basic Stochastic Finance at School Level	321
<i>D. Pfeifer, C. Mohn</i>	
e-stat: Development of a Scenario for Statistics in Chemical Engineering .	327
<i>C. Weihs, M. Kappler</i>	
e-stat: Web-based Learning and Teaching of Statistics in Secondary Schools	333
<i>C. Pahl, P. Lipinski, K. Reiss</i>	
EMILeA-stat: Structural and Didactic Aspects of Teaching Statistics through an Internet-based, Multi-medial Environment	339
<i>U. Genschel, U. Gather, A. Busch</i>	
Evaluating the GPH Estimator via Bootstrap Technique	343
<i>S. Golia</i>	
Evolutionary Algorithms with Competing Heuristics in Computational Statistics	349
<i>J. Tvrđík, I. Krivý, L. Mišík</i>	
Exact Nonparametrical Inference in R	355
<i>T. Hothorn, K. Hornik</i>	
Exploring the Structure of Regression Surfaces by using SiZer Map for Additive Models	361
<i>R. Raya Miranda, M.D. Martínez Miranda, A. González Carmona</i>	
Fast and Robus Filtering of Time Series with Trends	367
<i>R. Fried, U. Gather</i>	
Functional Principal Component Modelling of the Intensity of a Doubly Stochastic Poisson Process	373
<i>P.R. Bouzas, A.M. Aguilera, N. Ruiz-Fuentes</i>	
Growing and Visualizing Prediction Paths Trees in Market Basket Analysis	377
<i>M. Aria, F. Mola, R. Siciliano</i>	
Improved Fitting of Constrained Multivariate Regression Models using Automatic Differentiation	383
<i>T. Ringrose, S. Forth</i>	
Imputation of Continuous Variables Missing at Random using the Method of Simulated Scores	389
<i>L. Neri, G. Calzolari</i>	
Induction of Association Rules: A priori Implementation	395
<i>C. Borgelt, R. Kruse</i>	
Intelligent WBT: Specification and Architecture of the Distributed Mul- timedia e-Learning System e-STAT	401
<i>C. Möbus, B. Albers, S. Hartmann, J. Zurborg</i>	
Interactive Exploratory Analysis of Spatio-Temporal Data	407
<i>J.M. Dreesman</i>	
Interactive Graphics for Data Mining	413
<i>D. Di Benedetto</i>	
Least Squares Reconstruction of Binary Images using Eigenvalue Opti- mization	419
<i>S. Chrétien, F. Corset</i>	
Locally Adaptive Function Estimation for Categorical Regression Models	425
<i>A. Jerak, S. Lang</i>	
Maneuvering Target Tracking by using Particle Filter Method with Model Switching Structure	431
<i>N. Ikoma, T. Higuchi, H. Maeda</i>	
mathStatca: Mathematical Statistics with <i>Mathematica</i>	437
<i>C. Rose, M.D. Smith</i>	
MCMC Model for Estimation Poverty Risk Factors using Household Bud- get Data	443
<i>E. Käärrik, E.-M. Tuit, M. Vähi</i>	
MD*Book online & e-stat: Generating e-stat Modules from LaTeX	449

<i>R. Witzel, S. Klinke</i>	
Missing Data Incremental Imputation through Tree Based Methods	455
<i>C. Conversano, C. Cappelli</i>	
Missing Values Resampling for Time Series	461
<i>A.M. Alonso, D. Peña, J.J. Romo</i>	
ModelBuilder – an Automated General-to-specific Modelling Tool	467
<i>M. Kurcewicz</i>	
On the Use of Particle Filters for Bayesian Image Restoration	473
<i>K. Nittono, T. Kamakura</i>	
Optimally Trained Regression Trees and Occam’s Razor	479
<i>P. Savický, J. Klaschka</i>	
Parallel Algorithms for Inference in Spatial Gaussian Models	485
<i>M. Wiley, S.P. Wilson</i>	
Parameters Estimation of Block Mixture Models	491
<i>M. Nadif, G. Govaert</i>	
Pattern Recognition of Time Series using Wavelets	497
<i>E.A. Maharaj</i>	
Representing Knowledge in the Statistical System Jasp	503
<i>I. Kobayashi, T. Fujiwara, Y. Yamamoto</i>	
Robust Estimation with Discrete Explanatory Variables	509
<i>P. Čížek</i>	
Robust Principal Components Regression	515
<i>S. Verboven, M. Hubert</i>	
Robust Time Series Analysis through the Forward Search	521
<i>M. Riani, L. Grossi</i>	
Rough Sets and Association Rules – which is efficient?	527
<i>D. Delic, H.-J. Lenz, M. Neiling</i>	
Skewness and Fat Tails in Discrete Choice Models	533
<i>R. Capobianco</i>	
Standardized Partition Spaces	539
<i>U. Sondhaus, C. Weihs</i>	
StatDataML: An XML format for Statistical Data	545
<i>D. Meyer, K. Hornik, T. Hothorn, F. Leisch</i>	
Statistical Computing on Web Browsers with the Dynamic Link Library	551
<i>A. Takeuchi, C. Asano, M. Watanabe, H. Yadohisa, K. Yamaguchi</i>	
Statistical Inference for a Robust Measure of Multiple Correlation	557
<i>C. Dehon, C. Croux</i>	
Statistical Software VASMM for Variable Selection in Multivariate Methods	563
<i>M. Iizuka, Y. Mori, T. Tarumi, Y. Tanaka</i>	
Structural Equation Models for Finite Mixtures – Simulation Results and Empirical Applications	569
<i>D. Temme, J. Williams, L. Hildebrandt</i>	
Sweave: Dynamic Generation of Statistical Reports using Literate Data Analysis	575
<i>F. Leisch</i>	
Testing for Simplification in Spatial Models	581
<i>L. Scaccia, R.J. Martin</i>	
The Forward Search	587
<i>A. Atkinson</i>	
The MISSION Client: Navigating Ontology Information for Query Formu- lation and Publication in Distributed Statistical Information Systems	593
<i>Y. Bi</i>	
Time Series Modelling using Mobile Communications and Broadband In- ternet	599
<i>A. Prat</i>	
Unbiased Partial Spline Fitting under Autoregressive Errors	605
<i>M.G. Schimek</i>	
Unobserved Heterogeneity in Store Choice Models	611
<i>I.R. del Bosque, A. Suárez-Vázquez, I. Moral-Arce, J.M. Rodríguez-Póo</i>	

Using the Forward Library in S-plus	617
<i>K. Konis</i>	
Variance Stabilization and Robust Normalization for Microarray Gene Expression Data	623
<i>A. von Heydebreck, W. Huber, A. Poustka, M. Vingron</i>	
Weights and Fragments	629
<i>S. Morgenthaler</i>	
XQS/MD* Crypt as Means of Education and Computation	635
<i>J. Feuerhake</i>	
Author's Index	641
Keyword Index	644



<http://www.springer.com/978-3-7908-1517-7>

Compstat

Proceedings in Computational Statistics

Härdle, W.; Rönz, B. (Eds.)

2002, XII, 648 p. 159 illus., Softcover

ISBN: 978-3-7908-1517-7

A product of Physica-Verlag Heidelberg