

## Contents

<i>I. Aleksandrov, N. Maksimova, R. Näätänen, P. Paavilainen, K. Reinikainen, and M. Sams</i>	
Regularities of actualization of templates for standard and deviant stimuli in recognition task . . . . .	1
<i>Ph. Arabie</i>	
Multidimensional scaling in city-block spaces . . . . .	7
<i>K. V. Bardin, E. Z. Frishman, and I. G. Skotnikova</i>	
Quantitative data analysis in psychophysics in qualitative contexts . . . . .	14
<i>A. Bartkowiak</i>	
Teaching basic ideas of statistics with PS-STAT . . . . .	18
<i>J. M. F. ten Berge and H. A. L. Kiers</i>	
Exact and approximate solutions for the minimum rank of covariance matrix . . . . .	22
<i>C. C. J. H. Bijleveld and P. Legendre</i>	
Spatio-temporal regression analysis using state space models . . . . .	27
<i>P. Blahuš</i>	
Random variable – a view of representation measurement theory . . . . .	33
<i>Th. Blank and J. Reinecke</i>	
Long-wave panel analysis with categorical variables: A comparison of techniques with LISREL- and LISCOMP-models . . . . .	39
<i>U. Böckenholt</i>	
Modeling heterogeneity in count data . . . . .	45
<i>E. Boekkooi-Timmeringa</i>	
Specifying optimum examinees for item parameter estimation in Item Response Theory . . . . .	50
<i>G. Bove and F. Critchley</i>	
Metric Multidimensional Scaling for asymmetric proximities when the asymmetry is one-dimensional . . . . .	55
<i>M. W. Browne</i>	
Models for multitrait-multimethod matrices . . . . .	61
<i>E. van der Burg and G. B. Dijksterhuis</i>	
An application of nonlinear redundancy analysis and canonical correlation analysis . . . . .	74

<i>S. van Buuren and J. L. A. van Rijckevorsel</i>	
Data augmentation and optimal scaling . . . . .	80
<i>A. Camstra</i>	
The use of cross-validation techniques for model selection in covariance structure analysis . . . . .	85
<i>Ph. E. Cheng</i>	
Comparison of imputation methods for data missing at random . . . . .	90
<i>I. L. Chepkasov</i>	
Major locus inheritance of personality traits measured by psychometric tests .	94
<i>L. M. Collins, J. W. Graham, J. Pan, S. E. Wugalter, and W. B. Hansen</i>	
Crossvalidation of latent class models and of group differences . . . . .	98
<i>M. Cuesta, J. Muñiz, and D. Paz</i>	
Convergent validity of intelligence tests . . . . .	104
<i>K. Davydova and Ch. Izmailov</i>	
Multidimensional Scaling of configurations from lines . . . . .	579
<i>P. De Boeck</i>	
Componential linkage models based on subtask responses . . . . .	110
<i>P. Dickes and C. Reinhardt</i>	
Stimulus parameters and relational representation of spatial configurations in block design task . . . . .	114
<i>A. D'Onofrio, E. Lytle, and C. Freney</i>	
The effects of expert versus novice weighting of Likert items on the internal reliability of teacher evaluations . . . . .	120
<i>M. A. J. van Duijn</i>	
A mixed model analysis of count data . . . . .	126
<i>M. Eid, A.-K. Mayer, R. Steyer, P. Notz, and P. Schwenkmezger</i>	
Monopolar mood factors – a methodological artifact? First results of a simulation study with LISCOMP . . . . .	129
<i>E. Erdfelder</i>	
Markov modeling of imagery and verbal processes in human memory . . . . .	135
<i>E. Frishman</i>	
Monotony and fatigue: Psychological analysis . . . . .	141
<i>S. Gasik</i>	
WSL – a formal language for social processes: Description and simulation . .	144
<i>J. Gómez-Benito and M. Forns-Santacana</i>	
Confirmatory Factor Analysis of the McCarthy scales . . . . .	147

<i>J. W. Graham, N. L. Collins, S. I. Donaldson, and W. B. Hansen</i>	
Understanding and controlling for response bias: Confirmatory Factor Analysis of multitrait-multimethod data . . . . .	585
<i>P. J. F. Groenen</i>	
An application of a modified Leverrier-Faddeev algorithm for partitioned block designs in Multidimensional Scaling . . . . .	151
<i>P. G. M. van der Heijden and A. Mooijaart</i>	
A class of logbilinear models for the analysis of symmetric and skewsymmetric association . . . . .	157
<i>H. Hoijtink</i>	
Linear models with a latent dependent variable . . . . .	159
<i>D. Hutchison and I. Schagen</i>	
Reliability measures for national assessment in England and Wales . . . . .	165
<i>M. Ihara and Y. Kano</i>	
Selection of variables in factor analysis . . . . .	171
<i>Ch. A. Izmailov</i>	
Multidimensional Scaling of large color differences . . . . .	177
<i>M. G. H. Jansen</i>	
Empirical Bayes estimation of the parameters in Rasch's multiplicative Poisson model . . . . .	183
<i>R. Janssen, M. Hoskens, P. De Boeck</i>	
An application of Embretson's multicomponent latent trait model to synonym tests . . . . .	187
<i>B. W. Junker and W. F. Stout</i>	
Structural robustness of ability estimates in Item Response Theory . . . . .	191
<i>Y. Kano</i>	
A simple adjustment of the normal theory inference for a wide class of distributions in linear latent variate models . . . . .	197
<i>D. Kaplan and R. N. Wenger</i>	
Asymptotic independence and separability in covariance structure models . . . . .	203
<i>H. Kelderman</i>	
Estimating and testing a multidimensional Rasch model for partial credit scoring of children's application of size concepts . . . . .	209
<i>M. Kieser</i>	
Identification of types in contingency tables – an alternative to Configural Frequency Analysis . . . . .	213

<i>H. Klein</i>	
INTEXT/PC – a program package for the analysis of texts . . . . .	219
<i>W. A. van der Kloot</i>	
Some indeterminacies of solutions obtained by simultaneously finding monotone transformations of the data of several replications . . . . .	222
<i>P. Kovačević, S. Logar-Djurić, and P. Zarevski</i>	
Tendency to answer false questions in objective and attitude tests . . . . .	227
<i>B. Krause</i>	
Cognitive learning. An experiment-based approach . . . . .	231
<i>W. P. Krijnen</i>	
Non-contrast components according to the PARAFAC model . . . . .	237
<i>A. J. Kutyłowski</i>	
On adjacent sequential models for ordinal response data . . . . .	242
<i>R. Langeheine and R. van de Pol</i>	
Multiple indicator Markov models . . . . .	248
<i>I. A. van der Lans</i>	
An extension of Tucker's vector model for individual differences in preference accommodating with multiattribute preference data . . . . .	253
<i>A. N. Lebedev</i>	
Imaginary dimensions of subjective spaces . . . . .	258
<i>M. Lechner, F. Pfeiffer, and L. Giesecke-O'Shea</i>	
Expected job loss in East and West Germany 1998/90 – an econometric analysis using individual data of the socio-economic panel . . . . .	263
<i>S. Lewandowsky and W. E. Myers</i>	
Magnitude judgments in 3D bar charts . . . . .	266
<i>S. Lewandowsky and D. A. Newman</i>	
Chronometric scaling of numbers . . . . .	272
<i>W. J. van der Linden and T. J. H. M. Eggen</i>	
The Rasch model as a model for paired comparisons with ties . . . . .	278
<i>S. Logar-Djurić, L. Žiropadja, and P. Kovačević</i>	
Population trait level and the reliability of trait scores expressed in terms of estimated variance components . . . . .	283
<i>G. H. Maassen and W. Akkermans</i>	
Sociometric status determination with rating scales: Introduction of a probability model . . . . .	288

<i>R. R. Macdonald</i>	
On the generalisability of parametric statistical analyses . . . . .	293
<i>E. J. Manfred and G. J. Rezendes</i>	
Placement procedure using regression analysis at the United States Coast Guard Academy . . . . .	299
<i>S. A. Marinov</i>	
Some possibilities of Dimensional Theory in psychological data analysis . . . . .	305
<i>A. V. Markina and I. V. Maltseva</i>	
Quantity of alpha waves in single alpha spindle as a new EEG parameter of information processing . . . . .	311
<i>M. Th. Markus and R. A. Visser</i>	
Validity of bootstrap generated confidence regions for homogeneity analysis .	315
<i>H. Matschinger and M. C. Angermeyer</i>	
The effect of the item-direction on the item categories . . . . .	321
<i>R. R. Meijer and K. Sijtsma</i>	
Reliability of item scores and its use in person fit research . . . . .	326
<i>G. J. Mellenbergh</i>	
The unidimensional latent trait model for continuous item responses in brief .	333
<i>I. W. Molenaar and Á. Münnich</i>	
A relation between point items and cumulative items . . . . .	338
<i>R. Moreno and J. A. Pérez-Gil</i>	
On equivalence of Factor Analysis, Linear Discriminant Analysis and Cluster Analysis . . . . .	343
<i>Á. Münnich</i>	
Probabilistic choice systems . . . . .	349
<i>R. Nandakumar</i>	
Simultaneous item bias cancellation and amplification: Shealy-Stout's test for bias . . . . .	355
<i>H. Neudecker</i>	
The Hessian matrix for Image Factor Analysis . . . . .	361
<i>A. F. M. Nierop</i>	
The INDRES model: An INDSCAL model with residuals orthogonal to INDSCAL dimensions . . . . .	366
<i>P. Notz, M. Eid, and R. Steyer</i>	
FAST: A computer program for a fast and easy analysis of latent state-trait models . . . . .	371

<i>F. J. Oort</i>	
Theory of violators: Assessing unidimensionality of psychological measures . . . . .	377
<i>M. Paechter and D. Bartram</i>	
Cross-validation in small samples . . . . .	382
<i>J. Pannekoek</i>	
Estimating correspondence analysis models for contingency tables with correlated observations . . . . .	388
<i>I. Partchev</i>	
Individual and social modernization in Bulgaria: Recent evidence and methodological experience . . . . .	393
<i>I. Partchev</i>	
Standardization of the HAWIK-R test of intelligence for Bulgarian children . . . . .	397
<i>J. Pascual Llobell, R. Estarelles Rodriguez, C. Camarasa Cantò</i>	
Statistical analysis of the Solomon four group design: A case study . . . . .	402
<i>C. Pérez and J. L. Padilla</i>	
Differential item functioning and construct validation research . . . . .	408
<i>H. Pitariu, C. Vâlcea, C. Rapauzu, and L. Lepădatu</i>	
California Psychological Inventory – a tentative design of an expert system . . . . .	411
<i>J. M. Plusnin and A. A. Putilov</i>	
Psychological correlates of sleep-wake pattern . . . . .	415
<i>B. V. Pulkin</i>	
Averaging means and measurability principle . . . . .	421
<i>B. Pulkin, N. Scopintseva, and L. Bychkova</i>	
Using multiplicative alphabets for short-term memory span . . . . .	425
<i>T. Raykov</i>	
Studying true change patterns via structural equation modeling . . . . .	430
<i>T. A. Rebeko</i>	
Isolated features and whole impression from colors . . . . .	435
<i>I. Rentschler, M. Jüttner, and T. Caelli</i>	
Ideal observers for supervised learning and classification . . . . .	440
<i>J. Rost and M. von Davier</i>	
Measuring different traits in different populations with the same items . . . . .	446
<i>T. Saito</i>	
Multidimensional Scaling for asymmetric proximity data . . . . .	451

<i>A. Satorra and W. E. Saris</i>	
On the goodness-of-fit test in structural equation models: Extreme directions of power . . . . .	457
<i>M. J. Schmitt and R. Steyer</i>	
A latent state-trait model for social desirability . . . . .	463
<i>W. H. van Schuur</i>	
Nonparametric unidimensional unfolding of rating data . . . . .	469
<i>K. Schweizer</i>	
Comparison of various methods for classifying variables on the basis of correlations in small numbers of variables . . . . .	475
<i>I. G. Skotnikova</i>	
An additional graphical technique of data analysis in psychophysics . . . . .	479
<i>A. N. Sokolov</i>	
Toward psychological psychometrics . . . . .	484
<i>A. N. Sokolov</i>	
ANOVA applied to discovering properties of two conjoint effects on visual performance: An algorithm and an example . . . . .	490
<i>H. Strasburger, I. Rentschler, and L. O. Harvey jr.</i>	
Visual acuity, contrast sensitivity, and recognition of optotypes . . . . .	493
<i>J. P. Sutcliffe</i>	
On the commonalities and differentia of Multidimensional Scaling, Numerical Taxonomy, and Logical Taxonomy . . . . .	499
<i>J. P. Sutcliffe</i>	
On the nature of data and its coding in matrix form . . . . .	505
<i>I. Tölke</i>	
An approach to adaptive parameter identification in dynamic linear multivariate models . . . . .	511
<i>J. Tournois</i>	
Effects of constraints on measurement's results: An application to moral evaluation . . . . .	517
<i>B. Treutwein</i>	
Adaptive psychophysical methods . . . . .	523
<i>G. Vallejo Seco and F. J. Herrero Diez</i>	
Interrupted time series analysis: A study of simulation . . . . .	529
<i>A. Vargha</i>	
How to use ANOVA in case of dichotomous dependent variables . . . . .	535

<i>I. P. Vasilescu</i>	
The informational energy of domination . . . . .	540
<i>P. Verboon</i>	
An application of resistant nonlinear Principal Components Analysis . . . . .	544
<i>M. C. Viladrich and M. D. Riba</i>	
Fuzzy sets analysis of risk judgements in conjoint measurement . . . . .	550
<i>P. Westers</i>	
Differential Item Functioning detection using the loglinear Rasch model with latent classes . . . . .	556
<i>V. Zdravkov and M. Boev</i>	
Block-structural modelling with mixed data . . . . .	562
<i>R. Zwick</i>	
How do scale properties shape our conclusions about achievement trends? Examples from the National Assessment of Educational Progress . . . . .	568
<i>P. V. Zysno</i>	
Ordinal unfolding . . . . .	573
Subject index . . . . .	591