



International Federation of Classification Societies Newsletter

Number 12

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President: Douglas Carroll

Editor: Keiji Yajima

The International Federation of Classification Societies, founded in 1985, is composed of: Associação Portuguesa de Classificação e Análise de Dados, British Classification Society, Classification Society of North America, Gesellschaft für Klassifikation, Japanese Classification Society, Société Francophone de Classification, Società Italiana di Statistica, Association des Sociétés Yougoslaves de Statistique, Vereniging voor Ordinatie en Classificatie and Section of Classification and Data Analysis of the Polish Statistical Society. (Other societies are currently joining.)

The IFCS is a non-profit, non-political scientific organization, the aims of which are to further classification research. Among other activities, the IFCS organises a biennial conference, and supports the *Journal of Classification*.

Our twelfth year seems like a propitious time to consider carefully our goals for the *NEXT* dozen years— taking us well into the next century (and the new millennium)! It is my own sense that one of these goals should be that of establishing a single publication as the official *Journal of IFCS*, for the purpose of optimal dissemination worldwide of innovative research and integrative scholarly work related to classification. While the *IFCS Newsletter*, under the expert management of a series of excellent Editors, has served an essential communication function for IFCS, it does not provide, nor is it intended as, an outlet for important research papers on classification theory, methods, or significant applications— a publication outlet that would help immeasurably in providing IFCS the international visibility and impact that is needed to make it the preeminent scientific and professional organization in the field of classification.

It is my view that the best way to serve this critical need is to adopt the (already well established) *Journal of Classification (JoC)* as the official *Journal* for IFCS. *JoC* has recently been recognized by the Institute for Scientific Information (ISI) as the fifth-ranking (of over 120 mathematical journals) according to ISI's "citation impact" index (a normalized measure of citations per article), and has achieved an otherwise unparalleled status as a vehicle for communication of new developments in the areas of data analysis and scholarship related to classification.

From the President

Now that our fifth biennial conference is about to be held in Kobe, thanks to the herculean efforts and superb organizational skills of our Japanese hosts (most notably Chikio Hayashi, the Conference President, Keiji Yajima, Chair of the Program Committee, and Noboru Ohsumi, Chair of the Local Organizing Committee, but also of many others too numerous to name)— working under exceptionally difficult circumstances resulting from the tragic Kobe earthquake of January 17, 1995— IFCS is becoming a truly mature and internationally well recognized organization. Our sixth conference is now being planned for summer, 1998, in Rome, under the sponsorship of Società Italiana di Statistica (SIS), led by its current President, Alfredo Rizzi, and possible venues for future conferences are under discussion. We now have member Societies, or potential new member Societies now being formed, literally dotting the globe, so that the next decade promises to put IFCS in the position of serving the needs of people interested in research and scholarship in classification theory and methodology throughout the world. Our Federation has truly made great strides since its founding in Cambridge in 1985.

Contents

From the President	1
VOC - Dutch/Flemish Classification Society	2
GfKI - Gesellschaft für Klassifikation	2
CSNA - Class. Society of North America	3
SFC - Société Francophone de Classification	4
CLAD - Associação Portuguesa de Classificação e Análise de Dados	4
KCS - The News of KCS from January 1st to December 31 in 1995	5
5th IFCS - Draft Programme	6
BCS - BRITISH CLASSIFICATION SOCIETY	7
JCS - Japanese Classification Society	8

I therefore propose that, as a first step in this direction, we seriously consider steps to establish mechanisms expediting subscription to *JoC* by individual members of IFCS affiliated Societies (at the reduced rates already available to such individuals). In addition, I believe this is an ideal time for IFCS to consider steps facilitating adoption of *JoC* as its official Journal— at the earliest feasible date. In my opinion, no single action could do more to enhance the influence and status of IFCS in future years. Such an official Journal would also provide the central focus necessary to give IFCS a coherence it does not yet have, as well as serving to motivate people who would not otherwise join (or form new) member Societies to do so. I submit that our official adoption of the Journal of Classification, already the premier medium for intellectual discourse in our field, could help produce a unified purpose and structure for IFCS that would maximize our probability of continuing as a growing, as well as a highly viable and effective, organization— well into the 21st Century!

J. Douglas Carroll, President
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VOC—Dutch/Flemish Classification Society

The 1996 Spring Meeting of the VOC on the 9th of May will be dedicated to a mix of related themes: product design, consumer behavior and market segmentation. Key note speaker is Prof. Vanda Zammuner, Associate Professor at the University of Padua. She will talk about the process of classifying emotions.

The meeting will be hosted by Prof. Dr. C.J.H. Midden, Dean of the Faculty of Technology Management, Technological University at Eindhoven.

More information on the VOC and its meetings can be obtained from the secretary, Ineke Stoop.

Ineke Stoop, Secretary
Email: STOOP@SCP.NL

GfKI—Gesellschaft für Klassifikation

First announcement and call for papers 21st Annual Conference of the Gesellschaft für Klassifikation March 12 - 14, 1997, University of Potsdam.

The conference program will include methods and applications of Classification, Data Analysis and Information Processing. The scientific program will consist of plenary lectures and special sections. Interdisciplinary aspects of and interrelations between theory and practice will be particularly emphasized. For the first time the conference will be held in Brandenburg. Special emphasis will be placed on the topic of High Speed Networks and Information Flooding, a Challenge for Classification and Data Analysis.

Within the framework of the conference workshops, tutorials and software demonstrations are planned. Conference languages are German and English. Detailed informations are available from

Prof. Dr. I. Balderjahn, Lehrstuhl BWL- Marketing, Wirtschafts- und Sozialwissenschaftliche Fakultät, Universität Potsdam, August-Bebel-Str. 89, D-14482 Potsdam, Germany,
E-mail: balderja@rz.uni-potsdam.de

or directly via www-browsers from the head of the program committee Prof. Dr. R. Mathar from the University of Aachen via

<http://www.stochastik.rwth-aachen.de/gfk197>.

Annual Conference of the Gesellschaft für Klassifikation e.V.

The 20th Annual Conference of the Gesellschaft für Klassifikation e.V. was held on March 6-8, 1996, in Freiburg, Germany. The conference was very well attended by more than 360 participants from Austria, Denmark, France, Ireland, The Netherlands, Spain, Switzerland, United Kingdom, USA, and Germany. The general title of the conference “Classification, Data Analysis and Knowledge Organization” was taken up not only in a series of 20 plenary and semi-plenary lectures, but also in sessions to classification and data analysis, marketing and economics, information systems, text analysis, medicine and others. More than 130 contributed papers were processed in up to six parallel sessions.

In the sessions concerned with classification and data analysis new models and methods of classifying and representing different kinds of data as well as modifications and applications of known approaches were presented. Some papers focussed on probabilistic models of clustering and fuzzy classification techniques. In other talks the performance of existing software programs or self-developed computer programs was discussed providing additional information to those participants mainly interested in special software demonstrations available during the three days of the conference. The sessions on marketing and economics comprised 22

application-oriented papers on benchmarking, scenario analysis, implementations of methods for prognostic purposes in industry, and others. Quite a number of talks investigated the use of neural networks in modeling the underlying phenomena. Additional papers discussed the application of decision support systems in different areas.

The talks on information systems were well attended. Problems of using heterogeneous database systems were as well discussed as the process of software-engineering for economic applications. Sessions on internet and online retrieval as well as talks to text analysis comprised a broad variety of actual issues like web-publishing or the use of search engines in the fast growing world wide web. In addition to tutorials on computerbased text analysis the participants were able to attend to a panel session on the same issue.

Last but not least a remarkable number of 30 papers was oriented towards the field of medicine, e.g. the recent developments in dermatological and epidemiological diagnoses or the processing of medical data.

Because Freiburg, the place of the conference, is located in a famous wine-growing district, the social program included an interesting wine testing in the historic "Jesuitenschloss". Most participants used the breaks of the conference to explore the historic old part of Freiburg.

Wolfgang Gaul, President

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CSNA — Classification Society of North America

1. A new slate of officers and board members took office on January 1 of this year. The new officers are: Peter Bryant, President and Stephen C. Hirtle, President-Elect. Michael Windham becomes Past-President, and Dawn Iacobucci continues as Secretary-Treasurer. The new Board members are David Banks (Carnegie-Mellon University) and Glenn Milligan (The Ohio State University). J. Douglas Carroll, Larry Hubert, Melvin Janowitz, and Stanley Wasserman continue as Board members.

2. The society continues to enjoy considerable success with its journal, the *Journal of Classification*(*JoC*). A recent impact factor analysis, published by ISI, based on citations to articles published in the *JoC* ranked it 5th out of approximately 120 journals in the Mathematics class. Springer-Verlag has recently increased the allocation of pages to the *JoC*. We hope that may help decrease the publication backlog. This continued success is a tribute to the editorial staff and to the many authors who submit their papers. We continue to solicit high-quality manuscripts from authors of all IFCS member societies.

3. Information about CSNA, including membership information, abstracts of papers presented at recent meetings, meeting announcements, machine-readable versions of the CSNA Bibliography, and contents of recent *JoC* issues are available on the World Wide Web. Our home page URL is:

<http://www.pitt.edu/~csna/>

4. CSNA invites all members of IFCS Societies to attend the 1996 annual meeting of CSNA, to be held at the University of Massachusetts, in Amherst, Massachusetts from Thursday June 13, 1996 to Sunday June 16, 1996. The meeting will be held jointly with the Numerical Taxonomy Group.

A short course will be held on Thursday, June 13, and there will be a welcoming reception that evening. Planned paper sessions include:

Robert C. Powers : General consensus theory

Donald Dearholt : Pathfinder networks and proximity graphs

Stanley Wasserman : Classification in Social Network Analysis

Peter Bryant : Graduate student session

Stephen Hirtle : Information retrieval and classification

Sridhar Lakshaman and Anil Jain : Image analysis and estimation, Biological applications of consensus theory, Reticulate evolution, Software demonstrations

Keynote speakers will include:

*Herman Friedman, Fordham University

*Donald Geman, University of Massachusetts

*Bruno Leclerc, C.A.M.S., Paris

*Philippa Pattison, University of Melbourne

*D. L. Swofford, The Smithsonian Institution.

Further information is available from the conference chair, Melvin Janowitz, Department of Mathematics and Statistics, University of Massachusetts, Amherst, MA 01003 USA, Email: csna96@math.umass.edu

or from the CSNA home page on the World Wide Web, whose URL is given above.

Information about the numerical taxonomy program can be obtained from Pierre Legendre, legendre@ere.umontreal.ca.

Amherst is located in an attractive area of New England, near the Berkshire Mountains and the Connecticut River. The nearest airports are Hartford-Springfield and Boston. Further travel information is available from the conference chair.

Peter Bryant, President

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SFC—Société Francophone de Classification

1. The new Board of Directors of the SFC is as follows:

President: J.P. RASSON (F.U.N.D.P. - Namur - Belgium)
(President: 1996-1997, Vice-President: 1998).

Tel: +32 81 72 49 28;
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Vice-President: J.P. BARTHELEMY (Telecom - Bretagne - Brest - France) (Vice-President: 1996).

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Secretary: A. Hardy (F.U.N.D.P. - Namur - Belgium)
(1996-1997)

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Treasurer: O. Hudry (E.N.S.T. - Paris)
(1996-1997)

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2. The fourth annual SFC meeting will take place in Vannes (France) on September 19-20, 1996; it is organised by Prof. Georges Le Calve (University of Bretagne Sud (IUT, IUP)) and Prof. Israel Lerman (IRISA Rennes and University of Rennes I).

The three invited speakers are:

Alain Hillion (E.N.S.T. Brest, France).

Joe Whittaker (Lancaster).

Helena Bacelar-Nicolau (President of the CLAD (Associação Portuguesa de Classificação e Análise de Dados)).

Authors who intend to present a talk are requested to submit an abstract (minimum two pages - maximum four pages) (on the first page: the name and address of the author(s), a summary and a list of keywords) to the organiser, not later than May 1, 1996.

The Simon Regnier prize will be awarded during the meeting.

The general assembly of the SFC will be held during the meeting.

Interested persons will obtain further informations (conference program, Simon Regnier prize, ...) if they contact

Serge JOLY, Université de Rennes 2, 6 avenue
Gaston Berger, F - 35043 RENNES CEDEX France
Tel: +33 99 14 18 06; Fax: +33 99 33 24 06.

3. The issue number 6 of the "SFC Bulletin" was published in february 1996.

Andre Hardy, Secretary of the SFC.
Email: aha@math.fundp.ac.be

CLAD—Associação Portuguesa de Classificação e Análise de Dados

(1) The third annual meeting on Classification and Data Analysis, JOCLAD-95, was held on December 13-15, 1995, at the New University of Lisbon. Before, an introductory short course on Classification and Exploratory Multivariate Data Analysis was held at the University of Lisbon, on 12 December. About 120 people attended the meeting and more than 50 participants were present at the short course. Topics covered a wide variety of classification and data analysis methodology and applications. Attendants from a large range of backgrounds participated with presentations as well as questions and discussions, specially during a "round table".

Invited speakers were: A. D. Gordon (President of the IFCS), University of St. Andrews, Scotland ("Constrained Classification") and Phil Sutcliffe, University of Sidney, Australia ("On Clusters and Classes and on Role of Differential Ordering of Attributes in Classification and Object Identification"). Other plenary talks were presented by H. Bacelar-Nicolau, University of Lisbon ("On the Generalization of Lance and Williams Formula to the VL-Classification Models"), F. Calheiros, University of Porto ("What about Ethics in Data Analysis?"), F. C. Nicolau, New University of Lisbon ("On the Circular Hierarchical Classification"), P. Gomes, National Institute of Statistics at Porto ("On the total Quality of Surveys").

The meeting and short course were mostly sponsored by the British Council and the National Institute of Scientific and Technological Research, JNICT, of Portugal.

(2) An Workshop on Classification, Discrimination and Applications was organised at the LEAD / FPCE (Laboratory of Statistics and Data Analysis, Faculty of Psychology and Education), University of Lisbon, included in a scientific Luso-American cooperation program sponsored by the FLAD-American-Portuguese Foundation for Development. Part 1, on July 3-4, was specially directed towards users of "clad" methods and took place at the LEAD. Part 2 on July 10-11, focused more on theory and discussion of methodology, was held at the FLAD auditory. Around 30 participants attended the workshop.

Peter Bryant, from the Graduate School of Business Administration, University of Colorado at Denver, USA, was the scientific responsible for the course. Other speakers were: Gilles Celeux from the INRIA, Grenoble, France, F. C. Nicolau from the New University of Lisbon, H. Bacelar-Nicolau and Colleagues from the University of Lisbon.

(3) The CLAD and the ABE-Brazilian Society of Statistics have signed an Associate membership memorandum, favouring exchanging of information and scientific cooperation between societies. The protocol was signed during an invited visit of CLAD's President to the Universities of Recife and San Paulo, Brazil, to participate at the Regional annual meeting of the ABE and give a talk at the Institute of Statistical Mathematics, respectively. An invited speaker from ABE is expected to be present at next JOCLAD-96.

(4) The next annual meeting of the CLAD, JOCLAD-96, will be held on December 12-14, 1996 at the University of Lisbon, LEAD / FPCEUL, Alameda da Universidade 1600 Lisboa, Portugal (CLAD is located at the LEAD). An introductory short course on "clad" methods and applications will precede the meeting. Official languages are Portuguese, French and English.

I am pleased to invite you to join us next December in Lisbon. Interesting presentations are already prepared for the meeting, the university campus is pleasant and Lisbon is ... unique! For more information please contact. H. Bacelar at the LEAD or F. Costa Nicolau, Dep. de Matematica, Faculdade de Ciencias e Tecnologia da Universidade Nova de Lisboa, Quinta da Torre, 2825 Monte da Caparica, Portugal

Helena Bacelar-Nicolau, President

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The News of KCS Korean Classification Society

(1) The Annual Conference was held on July 10th 1995 at Ho-Am Professor Hall, Seoul National University, Seoul. Professor Jae-Chang Lee (Statistics, Korea University) was elected as a new President of the KCS.

There were following lectures:

1. Kyu-Dae Hwang (Professor, Bussiness Administration, Sungkunkwan University): Development of Measurement Scales and Justification Test of the Wage Satisfaction
2. Rae-Kyung Sung (Professor, Statistics, Ewha Womens University): The Concept of Statistics in view of Oriental Culture
3. Jae-Chang Lee (Professor, Statistics, Korea University): The Statistics in the Era of Internationalization

(2) The Second Seminar Meeting was held on December 7th 1995 at The National Bureau of Statistics, Seoul. Lectures were:

1. Shin-Sup Cho (Professor, Statistics, Seoul National University): The Credit Evaluation Model of the Enterprise
2. Hyuk-Soo Moon (Professor, School of Dentistry Seoul National University): The Prediction Model of the Decay of Teeth
3. Yong-Goo Lee (Professor, Statistics, Chungang University): The Survey Analysis of the Recognition of Nation and Goods

(3) A Membership of IFCS.

The KCS has applied for a membership of IFCS.

Yong Goo Lee, Secretary

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5th Conference of the International Federation of Classification Societies, Kobe, 27-30 March, 1996: Excerpt from Draft Scientific Programme

Invited Lectures

- Allan Drummond Gordon: Cluster Validation
François-Joseph Lapointe: To Validate and How to Validate? That is the Real Question.
Chikio Hayashi: What is Data Science?—Fundamental Concept and Heuristic Examples—
Willem Jan Heiser: Fitting Graphs and Trees with Multidimensional Scaling Methods
Hans Hermann Bock: Probabilistic Aspects in Classification
Lawrence Hubert & Phipps Arabie: The Approximation of one-or Two-mode Proximity Matrices by Sums of Order-constrained Matrices
Jae Chang Lee: Statistics, Data Analysis and Classification in Korea —Past, Present and Future—
Fernando Costa Nicolau: Some Trends in the Classification of Variables
Krzysztof Jajuga: Classification and Data Analysis in Finance
Jean-Paul Rasson: Convexity Methods in Classification

Invited Sessions

Quantification Methods/Correspondence Analysis

- L. Lebart: Correspondence Analysis, Discrimination, and Neural Networks
S. Nishisato: Exploring Multidimensional Quantification Space
T. Komazawa, T. Tsuchiya: Exploratory Data Analysis for Hayashi's Quantification Method $\text{I} \text{I}$ by Graphics

Fuzzy Methods and Probabilistic Methods for Clustering

- S. Bodjanoba: General Approach to the Construction of Measures of Fuzziness of Fuzzy k -partitions
H. Bozdogan: Univariate Mixture of Cubic B-Splines Approach to Detecting Multivariate Modality Using Model Selection Criteria
O. I. Cordero Braña: Hellinger Distance Estimation for Mixture Models
H. Bacelar-Nicolau, F. C. Nicolau: Probability in Hierarchical Classification of Categorical Data

Consensus and Comparison Theories in Classifications

- J. P. Barthélemy, F. R. McMorris, R. C. Powers: Stability Conditions for Consensus n -Trees
B. Fichet: The L_p -product of Ultrametric Spaces and the Corresponding Product of Hierarchies
B. Simeone, M. Vichi: Consensus of Hierarchical Classifications
B. Van Cutsem, B. Ycart: Random Dendrograms for Classifiability Testing and Comparison of Hierarchical Classifications

- J. Lehel, F. R. McMorris, R. C. Powers: Consensus Methods for Pyramids and Other Hypergraphs

Clustering Network Data

- T. A. B. Snijders: Stochastic Blockmodeling of Directed Graphs
V. Batagelj, P. Doreian, A. Ferligoj: Fitting Pre-specified Blockmodels
S. P. Borgatti, M. G. Everett: Network Analysis of 2-Mode Data

Spatial Clustering and Neural Network

- M. Tsuiki, M. Shiyomi: Application of Neural Networks to Grassland Management
M. Hernández-Pajares, J. M. Juan, A. Rius, J. Sanz: Application of Kohonen Maps to the GPS Stochastic Tomography of the Ionosphere
F. Murtagh, A. Aussem: The Wavelet Transform for Multivariate Data Analysis and Prediction

Visual Treatments in Data Analysis

- T. Kato: Multimedia Database with Visual Interaction Facilities
T. Imaizumi: Visualization of Discrete Structure in Data
M. Mizuta, H. Minami: Visual Manipulation Environment for Data Analysis System

Regularization Methods in Discriminant Analysis

- B. D. Flury: The Discrimination Subspace Model
A. Mkhadri: Regularization in Discrete Discriminant Analysis: An Overview

Classification of Textual Data

- M. B. Bertaut, L. Lebart: Automatic Clustering of Texts Application to Open-ended Questions in Surveys
S. Bolasco: Meta-data and Strategies of Textual Data Analysis: Problems and Instruments
M. Rajman, A. Rungsawang: How to Find the Nearest by Evaluating Only Few? Classification Techniques Used to Improve the Efficiency of an Information Retrieval System Based on Distributional Semantics

Non-linear Data Analysis

- J. F. Durand: Regression Splines for Multivariate Additive Modelling
E. van der Burg, G. B. Dijksterhuis: Nonlinear Analysis of Sensory Data
M. Mizuta: Bounded Algebraic Curve Fitting for Multidimensional Data, Using the Least-Squares Distance
N. C. Lauro, G. Tessitore, R. Verde: Multivariate B-spline Coding

Symbolic and Relational Data Analysis

- G. Hébrail: The SODAS Project: A Software for Symbolic Data Analysis
E. Diday, R. Emilion: Capacities and Credibilities in Analy-

- sis of Probabilistic Objects
 M. Ichino, H. Yaguchi: Symbolic Pattern Classifiers Based on the Cartesian System Model
 Francisco de A. T. de Carvalho: Extension Based Proximities between Constrained Boolean Symbolic Objects
 K. C. Gowda, P. Nagabhushan, H. N. S. Prakash, S. R. Kumar, E. Diday: Symbolic Clustering of Multispectral Data

Analysis of Multiway Data

- H. A. L. Kiers: Recent Developments in Three-mode Factor Analysis: Constrained Three-mode Factor Analysis and Core Rotations
 T. Murakami: Tucker2 as a Second Order Principal Component Analysis
 P. M. Kroonenberg, W. J. Heiser: Parallel Factor Analysis with Constraints on the Configurations

Data Analysis in Economics

- W. Gaul: Data Analysis: Just One Step within the Process of Providing Decision Support for Economic Problems
 A. Okada: Effects of End-Aisle Display and Flier on the Brand-Switching of Instant Coffee
 G. Nakhaeizadeh: Classification as a Subtask of Data Mining. Experiences from Some Industrial Projects
 D. Baier: A Constrained Clusterwise Regression Procedure for Benefit Segmentation
 M. Goulet, D. Wishart: Classifying a Bank's Customers to Improve Their Financial Services

Data Analysis in Quality Control

- K. Amasaka: Application of Classification and Related Methods to SQC, Renaissance in Toyota Motors
 A. Ootaki: Application of Statistical Binary Tree Analysis to Quality Control
 S. H. Park: Classification of Response Surface Designs and Their Applications for Quality Improvement in Industry

Multidimensional Scaling

- J. J. Meulman: A Distance-based Biplot for Multidimensional Scaling of Multivariate Data
 A. Okada, T. Imaizumi: Two-mode Three-way Asymmetric Multidimensional Scaling of Interpersonal Attraction
 J. D. Carroll, A. Chaturvedi: CANDCLUS: A Multiway Generalization of the INDCLUS Model and SINDCLUS Method for Overlapping Clustering
 S. Winsberg, G. De Soete: Extended CLASCAL: A Latent Class Approach to Fitting an Extended Weighted Euclidean Model

Environmental Data Analysis and Classification

- Y. Nakamori, N. Iwamoto, M. Ryoke: Development of Environmental Evaluation Models through Data Classification
 S. Suga, K. Oi, S. Miyamoto: Cluster Analysis of Associated Words Obtained from a Free Response Test on Tokyo Bay

- R. A. Berk, D. Schulman: Willingness to Pay for Household Water Saving Technology in Two California Service Areas

Cognitive Sciences and Classification

- J. -P. Barthélemy, J. -D. Kant: From Human Categorization Processes to Classification and vice-versa
 S. C. Hirtle, G. Cai: Classification Structures for Cognitive Maps
 J. P. Sutcliffe: Classification in Cognitive Science

Psychometric Methods and Classification

- J. L. Arbuckle: Structural Equation Modeling with Missing Data Using Amos
 U. Böckenholt: Mixture Models for the Analysis of Longitudinal Choice Data
 R. A. Harshman: Exploratory Multivariate Model Selection
 Y. Takane: Nonlinear Multivariate Analysis by Neural Network Models

Facet Theory for Classification

- R. Inglehart: The Structure of Subjective Well-Being, Data Analysis of the World Values Survey
 M. Ganor: The Application of Facet Approach to Achievement Testing: A Case for Classification of Science Test Items
 K. Manabe: Techniques for Classification of Questionnaire Items in Cross-National Comparison

BCS — BRITISH CLASSIFICATION SOCIETY

Next meeting is planned to be on 2 April at the Natural History Museum with provisional title "Modular crystallography and mineral classification — seeing the wood and the trees." by Mark D. Welch, of the Department of Mineralogy at the Museum. Annual General Meeting will be held at the end of June or early July.

Nick Fieller, Secretary
E-mail: n.fieller@sheffield.ac.uk

JCS — Japanese Classification Society

The annual research meeting of JCS was held in the afternoon of December 22, 1995 at the Institute of Statistical Mathematics. Speakers, presentations were as follows:

Keiji Yajima: Relationship between Fujisawa life table and other tables

Tairai Mino: An analysis of partial ranking including ramification.

Mika Sato and Yoshiharu Sato: Clustering for 3-way Data.

Kenji Nagasaka and Yuichi Takamiya: Genetic algorithm with cluster analysis discipline In traveling salesman problem.

Tatsuo Otsu: Searching linear models by Prolog.

Yoshio Takane and Henk A.L. Kiers: Latent class DEDICOM. (A probabilistic DEDICOM model was proposed for mobility tables. The model attempts to explain observed transition probabilities by a latent mobility table and a set of transition probabilities from latent classes to observed classes.)

Chikio Hayashi: What is data science? \ Fundamental concept and heuristic examples —.

Hideo Miyahara and Masuo Shirataka, Cluster analysis of mixed connective tissue disease.

S.Ohtsuka, F.Ohmori, K.Imamura, Y.Shibasaki and N.Ohsumi: The criteria for selecting surgical or orthodontic correction in borderline case of cleft lip and palate(CLP) individuals by roentogenocephalometrics.

Takao Ishizuka: Consideration on categorization of information and knowledge.

Atsuhiko Hayashi

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Articles from the first 1996 issue of *Journal of Classification*

(to be mailed in early June)

Vadim Pliner: Metric Unidimensional Scaling and Global Optimization

Evangelia Simantiraki: Unidimensional Scaling: A Linear Programming Approach Minimizing Absolute Deviations

Eric W. Holman: Quantitative Properties of the Evolution and Classification of Languages

John T. Daws: The Analysis of Free — Sorting Data: Beyond Pairwise Cooccurrences

John C. Gower & Michael J. Greenacre: Unfolding a Symmetric Matrix

Pierre Hansen, Brigitte Jaumard & Bruno Simeone: Espaliers: A Generalization of Dendrograms

Olivier Gascuel & Denise Levy: A Reduction Algorithm for Approximating a (nonmetric) Dissimilarity by a Tree Distance

Zhenmin Chen & John W. Van Ness: Space - Conserving Agglomerative Algorithms

Robert Saltstone & Ken Strange: A Computer Program to Calculate Hubert and Arabie's Adjusted Rand Index

COMPSTAT'96

Keynote Speakers

George E. P. Box: Scientific Statistics Teaching, Learning and the Computer

Angel Jordan: Trends in the Information Technologies Markets — The Future

August 26-30, 1996

Barcelona, SPAIN

Information: Prof. Albert Prat

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