



# International Federation of Classification Societies Newsletter

Number 29

May 2005

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President: Henk Kiers

Editor: Krzysztof Jajuga

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**The International Federation of Classification Societies**, founded in 1985, is composed of:

Associação Portuguesa de Classificação e Análise de Dados, British Classification Society, Central American and Caribbean Society of Classification and Data Analysis, Classification Society of North America, Gesellschaft für Klassifikation, Irish Pattern Recognition and Classification Society, Japanese Classification Society, Korean Classification Society, Société Francophone de Classification, Società Italiana di Statistica, Vereniging voor Ordinatie en Classificatie and Section of Classification and Data Analysis of the Polish Statistical Society.

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.

I would like to congratulate several persons for being elected to IFCS positions:

David Hand as President-Elect  
Vincenzo Esposito Vinzi as Secretary  
Iven Van Mechelen as Treasurer  
Davis Banks and Jean-Paul Rassin as Council Members  
Reinhold Decker and James Rohlf as Members of Finance Committee

Once again congratulations! I am looking forward to our cooperation

Krzysztof Jajuga, Publication Officer

## Contents

Word from the President  
News from IFCS Secretary  
Report of the Election Committee  
10<sup>th</sup> Conference of the IFCS  
ISI meeting  
The IFCS Transversal Group on SDAs  
News from VOC  
News from the SFC  
News from JCS  
News from CLAD  
Report on 29<sup>th</sup> GfKI Conference  
The 30<sup>th</sup> GfKI Conference  
New Titles

## IFCS Homepage:

<http://www.classification-society.org/>

Designed and maintained by David Dubin.

The website contains among others: the IFCS Constitution and By-Laws, the IFCS newsletters, and pointers to the websites of the member societies.

## Next IFCS Conference

The next Tenth IFCS Conference will take place from July 25 to July 29, 2006 in Ljubljana, Slovenia. Anuska Ferligoj and Vladimir Batagelj are the organizers of the conference. More information is given in this Newsletter.

## **A Word from the President**

During the last half year, several things in the organization of IFCS have taken place. As has been reported in detail elsewhere in this newsletter, elections have been held for several offices in the IFCS. I'm very glad to welcome David Hand as our new President-Elect, Vincenzo Esposito Vinzi as our new Secretary, and Iven van Mechelen as our new Treasurer. I look forward to, and to some extent have already experienced, an enjoyable, efficient and effective collaboration. Welcoming the new executive officers, I also take the opportunity to thank the officers stepping down: David Banks and Tae Rim Lee. I wish to thank both of you very much for all the work you did for the IFCS. In particular I would like to thank David also for his invaluable help to me when I entered office. In addition to the new executive officers, I am glad to welcome David Banks and Jean-Paul Rasson as 'additional' council members, and Reinhold Decker and James Rohlf as new members of the Finance Committee. In the mean time, as of January 1, the council has been reorganized, in the sense that most societies from now on only have one representative in the Council. Without mentioning everybody by name, I'd like to thank all council members that have now stepped down for having fulfilled (sometimes for a long time) the important task of Council member. Furthermore, I'd like to thank Rosanna Verde and Iven van Mechelen for their work in the Finance Committee. And last but not least, I'd like to thank the members of the Election Committee, Bernard Fichet, James Rohlf, Keiji Yajima and Hans Bock for the excellent job they did in organizing and completing successfully all these elections.

Apart from administrative business within the IFCS, of course our core business is to actually organize scientific activities. The next IFCS conference, IFCS2006 in Ljubljana, Slovenia, is now being announced elsewhere in this newsletter. I hope you have already noted down the dates July 25-29, 2006, and I look forward to meeting you at what I trust will again become a wonderful conference. Although the IFCS conference is, of course, our main activity, I've recently witnessed the very valuable conferences of member societies, and have enjoyed the

enthusiasm and involvement in these meetings. They may be aimed at a less international audience (although some, like the GfKI's have very many foreign participants as well), but all the more at a contents and application focused audience, which makes them very important for the dissemination of Classification and Data Analysis tools to a very wide audience.

Other IFCS matters have been dealt with in the past half year, and gradual progress is being made. Letters to sponsors for obtaining further means have been prepared and will be sent out to prospective sponsors (who may advertise in the newsletter) soon. Any suggestions for possible sponsors are welcome! Conferences and Workshops (morally) sponsored by IFCS are being organized (also see Secretary report and IFCS website), and further contacts with prospective member societies have been made. IFCS sessions at IMPS 2005 (Tilburg) and ISI 2007 (Lisbon) are being organized, and plans for setting up IFCS sponsored courses are being under development. Finally, the earlier announced use of the Class-L listserver for spreading general IFCS information has been used now for that purpose for the first time, and will be used more so in the future. If you haven't subscribed to this listserver yet, I can recommend you to do so. My experience so far is that you will not be overwhelmed with Class-L emails, and as far as you receive such emails, they are on topics that may definitely be of interest to you (being on consulting on Classification or data Analysis problems); its, so far rare, use for IFCS announcements of course should not cause you any fear of filling your mailbox with unwanted messages, and conversely, will allow you to more quickly get generally relevant IFCS information, like news on the IFCS2006 conference. In case you forgot how to subscribe: You can subscribe by sending the one-line message sub CLASS-L your name, to the address listserv@lists.sunysb.edu, where "your name" is your name (without quotes) as you wish to be listed. I hope in this and other ways we will continue to be (and become even more so) a thriving International Federation of Classification Societies.

**Henk Kiers**

## News from the IFCS Secretary

Dear Colleagues and Friends of the Classification,

I feel very pleased to have the opportunity to serve IFCS in the role of Scientific Secretary for the next three years. It is a great honour for me to take over the job from David Banks whom I thank for having been so helpful in making the transition extremely easy. I wish I will be able to be as devoted and precise as he was in taking care of IFCS business.

It is my intent to make my energies and experience available to the Federation's needs. Moreover, on the basis of the experience I previously gained as Scientific Secretary of IASC-ERS (European Regional Section of the International Association for Statistical Computing) and as a Council member of IASC, I look forward to co-operating with the President, Henk Kiers, and the other members of the Executive Committee and the Council thus contributing with new ideas and renewed enthusiasm to the further development of the Federation.

Since February, the starting month of my term, in co-operation with Henk Kiers, I have proceeded with updating the list of IFCS Executive Committee and Council members according to the recent election results. The newly elected President-Elect is David Hand. He will take over from Henk Kiers on January 1, 2006. The newly elected Treasurer is Iven Van Mechelen, who will be serving IFCS in this position for the next three years. The newly elected Additional Members are David Banks and Jean-Paul Rasson for a four years term. Finally, Reinhold Decker has been elected as a member of the IFCS Finance Committee for a four years term.

Furthermore, taking into account the substantial shrinkage of the membership on the Council, I have contacted those member societies for which the positions of representatives within the IFCS Council were vacant in order to speed up the process of their election. So far, I have received the names of representatives from all member

societies but from the British Classification Society (BCS). I hope to get also this name soon.

After that, I have run the election for filling in the vacancy occurred in the Finance committee, with the fact that Iven van Mechelen has become Treasurer. F. James Rohlf (CSNA) has been elected as a member of the IFCS Finance Committee. I congratulate James for his election and look forward to co-operating with him for the benefit of IFCS. Yoshiharu Sato (JCS) has been appointed to be the chair of the Finance Committee.

A very important project which IFCS is currently engaged with is represented by the inclusion of new member societies in the Federation. At present, the Greek Society of Data Analysis and the Chinese Association for Applied Statistics have shown their interest in joining IFCS. There are ongoing contacts with these Societies in order to formalise their official candidature as IFCS member societies.

As reported to the IFCS Council at the Chicago meeting, Dave Dubin has been developing an online voting application for the IFCS website. So far, the application has not been tested. Dave has created a dummy election and proposes to solicit feedbacks and suggestions from Council members on both the system itself and the design principles and criteria. In order to test the application, the Council members can contact Dave who will provide with the URL where the system is installed.

Finally, the IFCS is co-sponsoring the 4<sup>th</sup> International Symposium on PLS and Related Methods (PLS'05) being held in Barcelona (Spain) from September 7-9, at the Universitat Politècnica de Catalunya. The chief organizers are Tomàs Aluja and Josep Casanovas. The steering committee includes, among others, Carlo Lauro and myself representing IFCS Council. I wish many IFCS members will attend the Symposium (<http://www.pls05.upc.edu/>).

**Vincenzo Esposito Vinzi**  
**IFCS Scientific Secretary**

## **IFCS Elections in the end of 2004: Report of the Election Committee**

In the end of 2004, the terms of office ended for various members of the IFCS Executive Committee and other IFCS Committees and new members had to be elected by the IFCS Council. According to the new Election Rules (approved in July 2004) the organization and evaluation of these elections were conducted by the IFCS Election Committee and took place in November and December 2004. An official report has been sent to the IFCS Council members and to the Presidents/Chairpersons of the IFCS Member Societies in the beginning of 2005. This report circulates the results to the worldwide community of IFCS related classificationists.

1. The members of the Election Committee for the election period were Bernard Fichet (Marseille, SFC), F. James Rohlf (Stony Brook, CSNA), Keiji Yajima (Tokyo, JCS), and Hans H. Bock (Aachen, GfKL, Chair).

2. The open positions to be filled were: a) President-Elect, b) IFCS Secretary, c) IFCS Treasurer, d) a member of the IFCS Finance Committee, and e) two additional Council members.

3. A call for candidatures and proposals for the open positions has been sent to the IFCS Member Presidents in November 2004. The proposed candidates have been asked for their willingness to serve. Finally, there were the following numbers of nominations and candidates:

- a) President-Elect: 5 nominations, 3 candidates
- b) IFCS Secretary: 2 nominations, 1 candidate
- c) IFCS Treasurer: 1 nomination, 1 candidate
- d) Member of the IFCS Finance Committee: 1 nomination, 1 candidate
- e) Two additional Council members: 8 nominations, 6 candidates.

4. Election sheets were sent out to the IFCS Council members on November 30, 2004, with a deadline by December 21, 2004. 28 Council members (from 33) sent their votes that were counted and evaluated independently by two members of the Election Committee, using the Hare system.

5. The results are the following ones:

a) **David Hand** (London, UK, BCS) has been elected President-Elect for the period 1/1/2005 to 31/12/2005, then President from 1/1/2006 to 31/12/2007, then Past-President from 1/1/2008 to 31/12/2009.

b) **Vincenzo Esposito Vinzi** (Naples, Italy, CLADAG) has been elected IFCS Secretary for the period 1/02/2005 to 31/01/2008 (three years).

c) **Iven Van Mechelen** (Leuven, Belgium, VOC, CSNA) has been elected IFCS Treasurer for the period 1/02/2005 to 31/01/2008 (three years).

d) **Reinhold Decker** (Bielefeld, Germany, GfKL) has been elected as a member of the IFCS Finance Committee for the period 1/1/2005 to 31/12/2008 (four years).

e) **David Banks** (Durham, USA, CSNA) and **Jean-Paul Rasson** (Namur, Belgium, SFC) have been elected as additional Council members for the period 1/1/2005 to 31/12/2008 (four years).

The Election Committee thanks all candidates for their willingness to serve: by their candidatures, we have attained a very democratic election process with interesting alternatives. And, naturally, congratulations to all elected candidates!

**Hans H. Bock**

## **10th Conference of the International Federation of Classification Societies**

The conference will take place under the auspices of the International Federation of Classification Societies (IFCS) and is organized by the Slovenian Statistical Society and the Faculty of Social Sciences, University of Ljubljana. The conference is hosted by the Faculty of Social Sciences in Ljubljana, Slovenia.

The researchers interested in classification, data analysis and related methods are encouraged to participate in the conference. Persons wishing to present a paper should send:

- a title;
- an abstract for a book of abstracts of no more than 200 words;
- name(s) and affiliation(s) of the author(s);
- keywords

to the Chair of the Organizing Committee, **Anuška Ferligoj**, before February 15, 2006. Please send this information to the following e-mail address: [ifcs06@fdv.uni-lj.si](mailto:ifcs06@fdv.uni-lj.si).

The abstract should follow the guidelines that can be found at the conference web site [www.ifcs06.org](http://www.ifcs06.org)

### **Deadlines and Time Schedule of the IFCS 06 Conference**

|                   |  |
|-------------------|--|
| November 1, 2005  | Deadline for the submission of manuscript for the proceedings  |
| December 31, 2005 | Notification of the acceptance of the manuscript   |
| January 31, 2006  | Deadline for sending in the revised manuscript   |
| February 15, 2006 | Deadline for the submission of abstract  |
| February 15, 2006 | Deadline for the conference fee payment for the authors of papers to be published in the proceedings |
| March 31, 2006    | Notification of the acceptance of the abstract   |

### **Anuska Ferligoj**

### **ISI meeting**

The International Federation of Classification Societies played an active role at the International Statistical Institute meeting in Sydney, Australia on April 5-12.

In alternating ISI meetings the IFCS is allowed to sponsor one invited session. This year we focused on "Classification Methods for Complex Data Structures" in a session organized by Carlo Lauro. The speakers were F. R. McMorris, on "Consensus Classification"; Rosanna Verde and Yves Lechevallier, on "Clustering Methods in Symbolic Data Analysis"; and Vincenzo Esposito Vinci, on "PLS Path Modelling: Recent Methodological Developments with Applications to Customer Satisfaction" (joint with Silvano Amato and Carlo Lauro). The turnout was reasonably large, despite significant competition from several excellent parallel sessions, and the audience was very enthusiastic. Besides the IFCS special invited session, there were many other invited sessions that

represented our interests and our members. In particular, Vincenzo Esposito Vinci organized an invited session on "The PLS Approach in Data Analysis" with talks by Michel Tenenhaus, Yadolah Dodge, and Robert Cleroux. Also, Rosanna Verde organized an invited session on "Symbolic Data Analysis" with talks by Edwin Diday, Jean-Paul Rassin, and Hans-Hermann Bock. Additionally, Gilbert Saporta organized an invited session on "Statistical Learning from Data" and Masahiro Mizuta, Suzanne Winsberg, and Tae Rim Lee all gave excellent talks in invited sessions. And I must apologize to those whose contributions I have omitted – the meeting was large, the IFCS members are numerous, and I am sure that I have overlooked some people's participation.

### **David Banks**

### **The IFCS Transversal Group on Symbolic Data Analysis**

The IFCS Transversal Group on Symbolic Data Analysis (TG-SDA) is now fully installed and active. Here are some news about its activity.

The IFCS Transversal Group on Symbolic Data Analysis (TG-SDA) was formally installed by the IFCS Council during the IFCS conference in Krakow in July 2002, following a proposal signed by some colleagues working in the domain of Symbolic Data Analysis. The Symbolic Data Analysis Group is an initiative of several research groups working in Europe, Japan, Brazil, and USA, who took part in the SODAS and ASSO Esprit projects (1996/99 and 2000/2003). The motivation for establishing a SDA Group is to create a forum for developing, discussing and disseminating methods and ideas relating to the analysis of symbolic data, and for integrating new experiences and developments by researchers related to IFCS. This group will provide the opportunity, to any members of IFCS member societies and of national classification societies to cooperate and communicate in these domains. Following an invitation letter sent out by Y. Lechevallier in June 2004, about 30 persons from five national classification societies subscribed and are now enrolled as members of the TG-SDA.

To start the activities of the Transversal Group on SDA, a meeting took place during the IFCS Conference in Chicago in July 2004. The objective of this meeting was to present the group and its objectives to the participants of the IFCS Conference, to discuss its activities for the near future and to set up a “Coordination Committee”.

To start the meeting, Y. Lechevallier presented the goals of the SDA Transversal Group as follows:

- Organisation of SDA Workshops in the context of IFCS Conferences and National Classification Societies Meetings;
- Encouragement of specialised sessions at IFCS and, more generally, at International Conferences supported by IFCS;
- Dissemination of new methodologies and software by Summer Schools;
- Diffusion of didactical materials (slides, software, ...) to the Group members;
- Providing free access to the Electronic Journal of SDA ([www.jsda.unina2.it](http://www.jsda.unina2.it)) to the Group members;
- Creation of a website for the Group;
- Establishment of a link to the SDA Group website from the IFCS website;
- Circulation of information about the activity of the SDA Group in the IFCS Newsletter.

Edwin Diday recalled the history and presented the main concepts of Symbolic Data Analysis. Some motivating examples of symbolic data tables were presented.

Finally, Paula Brito presented the objectives of the ASSO Project and the functionalities of the SODAS Software.

The “Coordination Committee” was created. It comprises the following persons:

- Lynne Billard (University of Georgia, Athens, USA),
- Paula Brito (University of Porto, Portugal),
- Edwin Diday (University Paris-IX Dauphine, France) who will be in contact with the IFCS Council,
- André Hardy (Facultés Universitaires Notre Dame de la Paix, Namur, Belgium),
- Yves Lechevallier (INRIA, France) who will be the contact address for TG-SDA, and
- Rosanna Verde who is in charge of the SDA Electronic Journal (JSDA).

Concerning future activities, it has been decided that the Group organize a Workshop each year.

In September 2004, a combined Tutorial and Workshop on Symbolic and Spatial Data Analysis was organized by Monique Noirhomme and Paula Brito in Pisa, Italy, in the framework of the 15th European Conference on Machine Learning (ECML) and the 8th European Conference on Principles and Practice of Knowledge Discovery in Databases (PKDD).

Special sessions on Symbolic Data Analysis will take place in the framework of International Conferences that will be held during the year 2005:

- At the 55th session of the ISI (Sydney, 5-12 April 2005), an invited session on Symbolic Data Analysis has been scheduled on the 8th April; see <http://www.tourhosts.com.au/isi2005/forms/IPMSchedule.pdf>
- At ASMDA-2005 Conference (Brest, France, 17-20 May 2005) an invited session on Symbolic Data Analysis has been organized – see <http://asmda2005.enst-bretagne.fr/>
- At the 3rd world conference on Computational Statistics & Data Analysis (Cyprus, 28-31 October 2005), a track on Analysis of Symbolic and Structured Data has been organized; see <http://www.csdassn.org/europe/CSDA2005/>

You are strongly invited to actively participate in these sessions.

As further activities during the year 2005 and the next year, a Summer School will be organized; one or two Symbolic Data Analysis Sessions at the next IFCS Conference in Ljubljana, Slovenia, on July 25-29, 2006 – see

<http://www.classification-society.org/ifcsconf.html>

and a session on SDA at COMPSTAT 2006 in Rome – see <http://w3.uniroma1.it/compstat2006/>

Researchers and practitioners who are interested in information on, and cooperation with, the SDA Group should contact [Yves.Lechevallier@inria.fr](mailto:Yves.Lechevallier@inria.fr).

**Paula Brito**

## News from the VOC

The spring meeting of the VOC on April 15th 2005 at the TNO in Leiden was a very successful event with about 40 attendants. The goal of the meeting was to provide an introduction into the ins and outs of Support Vector Machines.

Johan Suykens opened the meeting with an overview of Support Vector Machines and Kernel Based learning. David Tax lively discussed the support vector classifier. Elena Marchiori showed a nice application of SVM's, namely for tumor diagnostic and biomarker detection with pattern proteomic data. Georgi Nalbantov presented the method of Support Vector Regressions and and application in finance. Cajo ter Braak closed the meeting with connecting SVM to the – for VOC'ers better known – framework of penalized regression.

The autumn meeting will have a mixed program, and will probably take place on November 18, 2005 in Amsterdam. The up-to-date information on the activities of the VOC is available via [www.voc.ac](http://www.voc.ac)

**Marieke Timmerman**

## News from the SFC

1. SFC' 2005 Conference, Mai 30 – June 1, Montréal, Québec

SFC 2005 meeting will take place in Montréal from Mai 30 to June 1, 2005. All the information is available on the website of the conference:

<http://www.lacim.uqam.ca/~sfc05/>

2. SFC'2006 Conference, September 2006

The 2006 annual meeting of the SFC will be organized by the "LITA" laboratory of the university of Metz in September 6-8, 2006. The conference will take place at *Ile du Saulcy 57045 Metz, France* and the future official web site will be: <http://lita.sciences.univ-metz.fr/~sfc06/>. The President of the scientific committee is Prof. Hoài An Lê Thi. The President of the organizing committee is Prof. Mohamed Nadif

3. EGC 2006

The annual meeting "EGC 2006" will be held at Lille, January 17-20, 2006. For further information: <http://www-rech.enic.fr/egc2006/>

**André Hardy, SFC Secretary**

## News from JCS

The 21th Annual Research Meeting of the Japanese Classification Society was held at the Toyo Eiwa University on December 17, 2004. The speakers and the titles of their talks are as follows:

1. Missing Region Modeling and Multivariate Normal Mixture Model

Nagatomo Nakamura \*, Genta Ueno \*\*, Tomoyuki Higuchi \*\*, Sadanori Konishi \*\*\*

\* Sapporo Gakuin University, \*\* The Institute of Statistical Mathematics, \*\*\* Kyushu University

2. Representation of personality profile with Chernoff faces: Impressions of personality given by Chernoff faces

Hideo Tsujimoto (Osaka City University)

3. Principal component analysis based on fuzzy clustering considering dynamic change for interval

Junya Oshima, Mika Sato-Ilic (University of Tsukuba)

4. Data analysis of the Asia barometer survey: "Seeing the forest" or "Seeing the tree"

Kazufumi Manabe (Kwansei Gakuin University)

5. Palliative care in medical education

Kikuko Miyazaki \*, Mari Saito \*\*, Fumi Hayashi \*

\* Toyo Eiwa University, \*\* Yokohama City University Medical Center

6. A study of religious feeling based on value survey in East Asia

Fumi Hayashi \*, Kazue Yamaoka \*\*, Ryozo Yoshino \*\*\*

\* Toyo Eiwa University, \*\* The National Institute of Public Health, \*\*\* The Institute of Statistical Mathematics

7. Mining and classification of acceleration factor of technological development

Shuji Kamakura\*, Takao Ishizuka \*\*, Koichi Nishimura \*

\* Decision Sciences Institute Japan, \*\* Asia University

8. Structure mining of newspaper articles

Takao Ishizuka (Asia University)

9. Multidimensional scaling to embedding objects into a Euclidian space of local dimensionality

Tadashi Imaizumi (Tama University)

**Nobuo Shimizu**

## News from CLAD

The XII Meeting of Classification and Data Analysis, JOCLAD2005, of the Portuguese Association of Classification and Data Analysis, took place at the University of the Azores, in Ponta Delgada, from the 20th to the 23rd April 2005. The meeting was organised by the Statistics and Operational Research Section of the Department of Mathematics of the University of the Azores and the CLAD. There were about 70 participants, mostly higher education teachers, postgraduate students, researchers and users of classification and data analysis and related areas. The programme of the JOCLAD2005 meeting comprised several thematic sessions, covering areas such as data mining; neuronal networks and decision trees; cluster analysis; probabilistic clustering models; factorial analysis, discriminant analysis and sampling, as well as applications. Invited speakers were Henk Kiers, from the University of Groningen, The Netherlands (Visualising Dependence of Bootstrap Confidence Intervals for Methods Yielding Spatial Configurations), Carlo Lauro from the University of Naples, Italy (Factorial Conjoint Analysis), Manuela Neves from the Technical University of Lisbon (Statistics of Extremes: Applications for Estimating Parameters in Environmental Data) and Helena Bacelar-Nicolau from the University of Lisbon (Models of Hierarchical Classification and Quality Indicators). A round table on “The Teaching and Training of Statistics and Data Analysis”, was held on the 22th April, organized by Helena Bacelar-Nicolau on behalf of the IFCS EdCom. Henk Kiers, Carlo Lauro and several Portuguese teachers participated in the debate.

A satellite workshop on “Research Topics and Applications in Multivariate Analysis” was held before the meeting: Carlo Lauro and Francesco Palumbo presented a tutorial on “Multidimensional Interval Data Analysis” the 20<sup>th</sup> April afternoon and Henk Kiers, presented a tutorial on “Three-way Component Analysis” the 21<sup>st</sup> April morning.

The interdisciplinary nature of the fields of research and application, which is one of the CLAD’s goals, was accomplished, and there was a pleasant atmosphere throughout all the event, complementing academic work with entertainment and beautiful sightseeings of Azores.

The next JOCLAD2006 will be held in Lisbon, hopefully in February.

**Helena Bacelar-Nicolau**

[hbacelar@fpce.ul.pt](mailto:hbacelar@fpce.ul.pt); [cladlead@fpce.ul.pt](mailto:cladlead@fpce.ul.pt)

## Report on the 29<sup>th</sup> Annual Conference of the German Classification Society, March 9-11, 2005

The 29<sup>th</sup> Annual Conference of the German Classification Society was hosted by the Otto-von-Guericke-University Magdeburg during March 9-11, 2005. This year’s conference focused on the transfer of methods from data analysis to knowledge engineering and on the challenges inherent to various types of information for a large number of application areas. The conference was organized jointly with the Slovenian Artificial Intelligence Society (SLAIS).

The conference with more than 200 talks attracted – together with the doctoral and librarian workshops – more than 300 participants. Besides the submitted papers, the scientific program offered two plenary talks on support vector machines (Thorsten Joachims, Cornell University, USA) and successful applications of data mining techniques (Nada Lavrac, J. Stefan Institute, Ljubljana, Slovenia) and nine semi-plenary talks covering such diverse topics as graph mining, genomics, marketing sciences, fuzzy clustering, text mining, metadata, multimedia mining, research in molecular medicine and object identification in databases.

The scientific program of contributed talks featured seven parallel sessions with presentations from a broad area of topics. Based on the submissions, dedicated tracks were organized on the following topics:

### Classification and Data Science

- Clustering and Data Analysis Methods (H.-H. Bock, RWTH Aachen, Germany)
- Discrimination, Supervised Classification, Pattern Recognition (G. Ritter, University Passau, Germany)
- Multiway Classification and Data Analysis (S. Krolak-Schwerdt, Saarland University,

Germany und H. Kiers, University of Groningen, Netherlands)

- Multimode Clustering and Dimensionality Reduction (M. Vichi, University Roma - "La Sapienza", Italy)
- Robust Methods in Multivariate Statistics (A. Cerioli, University of Parma, Italy)
- Dissimilarities and Clustering Structures (B. Fichet, University of Aix-Marseille II, France)
- PLS Path Modeling, PLS Regression and Classification: New Methods and Applications (C. Lauro, University "Federico II" of Napoli, Italy und V. Esposito Vinzi, University "Federico II" of Napoli, Italy)
- Ranking, Multi-Label Classification and Preference Learning (J. Fürnkranz, Technical University Darmstadt, Germany und E. Hüllermeier, Philipps-University Marburg, Germany)
- Computational Advances in Data Analysis (H.-J. Lenz, Freie Universität Berlin, Germany)
- Neuro-Fuzzy Methods for Data Analysis (R. Kruse, Otto-von-Guericke-University Magdeburg, Germany)
- Visualization (P. Groenen, Erasmus University Rotterdam, Netherlands)

### **Information Analysis and Knowledge Engineering**

- Classification and Analysis for Data Intensive Scenarios (G. Saake, Otto-von-Guericke-University Magdeburg, Germany)
- Data Mining and Explorative Multivariate Data Analysis (L. D'Ambra, University "Federico II" of Napoli, Italy und P. Giudici, University of Pavia, Italy)
- Text Mining (A. Nürnberger, Otto-von-Guericke-University Magdeburg, Germany und D. Mladenic, Jozef Stefan Institute Ljubljana, Slovenia)
- Web Mining (M. Spiliopoulou, Otto-von-Guericke-University Magdeburg, Germany)
- Adaptivity and Personalization (A. Geyer-Schulz, University Karlsruhe, Germany und L. Schmidt-Thieme, Albert-Ludwigs-University Freiburg, Germany)
- Information Management for User and Data Authentication in IT Security (J. Dittmann, Otto-von-Guericke-University Magdeburg, Germany)

### **Applications**

- Industrial Applications and Solutions (M. Spiliopoulou, Otto-von-Guericke-University Magdeburg, Germany)
- Banking and Finance (H. Locarek-Junge, Technical University Dresden, Germany)
- Marketing (D. Baier, Brandenburg University of Technology Cottbus, Germany und M. Meyer, Ludwig-Maximilians-University München, Germany)
- Economics (O. Opitz, University Augsburg, Germany)
- Mining in Business Processes (C. Rautenstrauch, Otto-von-Guericke-University Magdeburg, Germany)
- Bioinformatics and Biostatistics (B. Lausen, Friedrich-Alexander University Erlangen-Nürnberg, Germany)
- Classification of Highdimensional Observations and Biometrical Applications (S. Kropf, Otto-von-Guericke-University Magdeburg, Germany und J. Bernarding, Otto-von-Guericke-University Magdeburg, Germany)
- Medical and Health Sciences (K.-D. Wernecke, Charité Berlin, Germany)
- Music Analysis (C. Weihs, University Dortmund, Germany)

In the run up to the conference a data mining competition took place, which was sponsored by the „Deutsche Sparkassen- und Giroverband“ (DSGV). The data was downloaded far more than 500 times. The organizers received 40 solutions, all of very high quality. The best solution was submitted by David Vogel from MEDai, Inc., United States, who already was among the first winners of the KDD Cups in 2003 and 2004. The second winners were two teams with similar performance from the RWTH Aachen, Germany. David Vogel and representatives of the two teams had been invited to the conference and presented their solutions.

The number of submissions and participants exceeded the expectations of the organizers and they like to thank everybody who was involved either in the organizational process, like by organizing a track or by announcing this event to colleagues, or as active participants, who were responsible for the interactive and stimulating atmosphere throughout the conference.

The post-proceedings with selected contributions of this conference will be published by Springer-Verlag in the series "Studies in Classification, Data Analysis, and Knowledge Organization".

Further details concerning the conference can still be found at the conference web site <http://www.gfkl.de/gfkl2005/>

**Andreas Nürnberger**

### **30<sup>th</sup> GfKI Annual Conference**

The German Classification Society GfKI (Gesellschaft für Klassifikation) will hold its 30<sup>th</sup> Annual Conference at the Free University of Berlin (Germany), March 8 – 10, 2006. The conference is titled "Advances in Data Analysis" and focuses on data analysis, learning of latent structures in datasets, and unscrambling of knowledge.

The scientific program of this international conference will include sessions with invited talks and contributed presentations from a broad range of topics. Special emphasis will be laid on interdisciplinary research and the interaction between theory and practice. The program will be complemented by an advanced Japanese-German workshop on data analysis and classification as well as a doctoral workshop for PhD students working on the conference topics. The broad range of relevant topics is illustrated by the following list of intended sections. Contributed papers from scholars and practitioners are invited on any of these as well as on related topics:

Theory and Methods:

Multivariate Statistical Methods; Exploratory Data Analysis; Clustering and Classification; Pattern Recognition and Machine Learning; Visualisation and Scaling Methods; Bayesian, Neural and Fuzzy Clustering; Graphs, Trees, and Hierarchies; Evaluation of Clustering, Algorithms and Data Structures.

Data Science and Innovative Tools:

Data Cleaning and Pre-Processing; Data, Text and Web Mining; Information Extraction and Retrieval; Personalization and Intelligent Agents; Tools for Intelligent Data Analysis; New Challenges in Data Science.

Applications: Subject Indexing and Library Science; Marketing and Management Science; e-

commerce, Recommender Systems and Business Intelligence; Banking and Finance; Production, Controlling and OR; Biostatistics and Bioinformatics; Genome and DNA Analysis; Medical and Health Sciences; Archaeology and Geography; Engineering and Environment; Administrative Record Census; Linguistics and Statistical Musicology; Image and Signal Processing.

Participants intending to present a talk are invited to submit an abstract by email. All abstracts will undergo a reviewing process. Accepted abstracts will be distributed to the conference participants. The post-conference proceedings will be published in the Springer Series Studies in Classification, Data Analysis, and Knowledge Organization.

Conference languages are English and German.

Important dates:

November 10, 2005: Deadline for abstract submission

January 13, 2006: Notification of acceptance

March 7, 2006: Japanese-German Workshop and GfKI Doctoral Workshop

March 8 – 10, 2006: GfKI Conference

April 28, 2006: Deadline for full paper submission

Detailed information about the conference will be found on the conference website

<http://www.gfkl.de/gfkl2006/>

Just in case send a message to the local organizing team:

[gfkl@wiwiss.fu-berlin.de](mailto:gfkl@wiwiss.fu-berlin.de)

**Hans-J. Lenz, Reinhold Decker**

### **New Titles**

Two New Titles in the "Data Analysis and Computer Science" series were published by Chapman and Hall/CRC Press (now an imprint of Taylor and Francis). The series editors of the "Data Analysis and Computer Science" series are: John Lafferty (Carnegie Mellon University), David Madigan (Rutgers), Fionn Murtagh (Royal Holloway, University of London) and Padhraic Smyth (University of California Irvine).

F. Murtagh, *Correspondence Analysis and Data Coding with R and Java*, with a Foreword by J.P. Benzecri, Chapman and Hall, June 2005.

Chapter 1: Introduction

Chapter 2: Theory of correspondence analysis

Chapter 3: Input data coding

Chapter 4: Examples and data coding

Chapter 5: Content analysis of text

Chapter 6: Concluding remarks

Publisher's annotation:

*Correspondence Analysis and Data Coding with Java and R* clearly demonstrates why this technique remains important and in the eyes of many, unsurpassed as an analysis framework. After presenting some historical background, the author presents a theoretical overview of the mathematics and underlying algorithms of correspondence analysis and hierarchical clustering. The focus then shifts to data coding, with a survey of the widely varied possibilities correspondence analysis offers and introduction of the Java software for correspondence analysis, clustering, and interpretation tools. A chapter of case studies follows, wherein the author explores applications to areas such as shape analysis and time-evolving data. The final chapter reviews the wealth of studies on textual content as well as textual form, carried out by Benz of correspondence analysis to artificial intelligence as well as to stylometry and other fields.

B. Mirkin, *Clustering for Data Mining: A Data Recovery Approach*, Chapman and Hall, April 2005

Publisher's annotation:

Often considered more as an art than a science, the field of clustering has been dominated by learning through examples and by choosing techniques almost through trial-and-error. Even the most popular clustering methods – K-Means for partitioning the data set and Ward's method for hierarchical clustering – have lacked the theoretical attention that would establish a firm relationship between the two methods and provide relevant interpretation aids. Rather than the traditional set of ad hoc techniques, the book presents a theory that not only closes gaps in K-Means and Ward methods, but also extends the methods into areas of current interest, such as clustering mixed scale data and incomplete clustering. The author suggests original methods

for both cluster finding and cluster description; addresses related topics such as principal component analysis, contingency measures, and data visualization; and includes nearly 60 computational examples covering all stages of clustering, from data pre-processing to cluster validation and results interpretation. This author's unique attention to data recovery methods, theory-based advice, pre- and post-processing issues and clear, practical instructions for real-world data mining make this book ideally suited for virtually all purposes: for teaching, for self-study, and for professional reference.

Introduction: Historical Remarks

Chapter 1: What is Clustering

Chapter 2: What is Data Feature Characteristics

Chapter 3: K-Means Clustering

Chapter 4: Ward Hierarchical Clustering

Chapter 5: Data Recovery Models

Chapter 6: Different Clustering Approaches

Chapter 7: General Issues

Conclusion: Data Recovery Approach in Clustering

**Fionn Murtagh, Boris Mirkin**

**Contributions for the coming issue of the IFCS newsletter can be sent to:**

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Text files are by preference in ascii or word, with pc format. For graphical materials, by preference GIF is used.

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