



# International Federation of Classification Societies Newsletter

Number 25

May 2003

President: Carlo Lauro

Editor: Krzysztof Jajuga

**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.

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## IFCS Election Results

In January 2002, the IFCS Council completed the election for four new officers:

- the Vice-President (who is the incoming President);
- the Secretary of the Group-at-Large;
- two new Additional Members.

The newly elected Vice-President is Henk Kiers, from the VOC. He will take over from Carlo Lauro on January 1, 2004. The newly elected Secretary of the Group-at-Large is Vladimir Batagelj, from Slovenia, who takes over from Anuska Ferligoj. The newly elected Additional Members are Hans Bock (from GfKl) and Akinori Okada (from JCS), replacing Phipps Arabie and Jacqueline Meulman.

The IFCS is extremely grateful to the departing officers for all their contributions, and we look forward to the ideas and energy of the new Council members.

## David Banks, IFCS Secretary

I would like to congratulate the new members of IFCS Council and wish them all the best in serving at the office.

Krzysztof Jajuga, Publication Officer

## Report from the IFCS Secretary

It has been a busy season for IFCS activities. The preparation for the 2004 meeting in Chicago continues, and there is a separate report on that and a call for papers elsewhere in this newsletter.

The IFCS is co-sponsoring, with the International Association for Statistical Computing, the Joint International Summer School (JISS) on Classification and Data Mining. The JISS is being held in Lisbon, Portugal, from July 23-30, at the University of Lisbon. The organizer is Helena Bacelar-Nicolau, and the steering committee includes David Hand, Hamparsum Bozdogan, and Hans Bock. Besides the participation of many IFCS members, the Council recently approved a motion to contribute \$2000 towards the expenses of the JISS.

Additionally, after many setbacks and unavoidable delays, the Finance Committee is nearly finished with their report to the Council. I expect to present their findings and recommendations to the Council within a few weeks.

The Committee of Sages, consisting of all past-presidents of the IFCS and co-chaired by Jean-Paul Rasson and Hans Bock, is working on revisions to our Constitution and By-Laws. I strongly urge members who have suggestions for ways to improve the mechanisms of this organization to contact either of the chairs. These ideas may propose better implementation of electronic voting in the modern Internet era, reorganization of our committee structure, criteria for supporting or sponsoring qualified conferences, changes in the number of representatives, or any other alterations that may help the IFCS better fulfill its mission.

There are a number of other committees working on many other projects, such as logos, publications, long-range planning, and so forth. Carlo hopes that these committees will be able to report to him in the early summer on their progress, so that their contributions can be locked in before the end of his term on January 1, 2004. I hope that all the chairs of those committees will move swiftly to achieve this.

**David Banks**  
IFCS Secretary

## The 2004 Meeting of the International Federation of Classification Societies

### Call for Papers

The eighth biennial meeting of the International Federation of Classification Societies will take place at the Illinois Institute of Technology in Chicago, from July 15-18, 2004 (with a short course day on July 14). Researchers interested in classification, clustering, data analysis, and related methods and applications are invited to participate.

People who wish to both give an oral presentation and submit a paper for the refereed proceedings volume should send their manuscripts to [ifcs-editor@iit.edu](mailto:ifcs-editor@iit.edu). Manuscripts for contributed talks should not exceed 8 pages. Speakers in invited sessions are allowed 10 pages.

The proceedings volume will be published by Springer-Verlag in time for distribution to the attendees at the conference. This requires us to maintain a very tight schedule, as given below:

- November 1, 2003 - Deadline for the submission of a manuscript for the proceedings
- December 31, 2003 - Notification of the acceptance of the manuscript
- January 31, 2004 - Deadline for sending in the revised manuscript
- February 29, 2004 - Deadline for payment of the conference registration fee

The organizers strongly request that all submissions, will be in LaTeX files with Times New Roman font and 11-point type. But we recognize that this may not be convenient for all participants, and we will work with authors to help convert files into the format needed for Springer-Verlag.

No one may make more than one oral presentation, however, there is no limit on the number of times a person can be listed as a coauthor on a paper.

The official language of the conference is English.

Further information on the meeting can be found on the IFCS website. This site will contain details on paper submissions, registration, local arrangements, transportation and lodging as quickly as they become available. The URL is <http://www.classification-society.org/ifcs04/>

**David Dubin**

## In Memoriam Roger Needham

Roger Needham was a member of the editorial board of The Computer Journal, of which I am Editor-in-Chief. When, last summer, a meeting of editorial board members of The Computer Journal was proposed for January 2003, one of those planning to attend was Roger Needham. His participation was not to be. Following a struggle with cancer, Roger Needham passed away on 28 February 2003.

Roger was one of the great computer scientists. His work ranged over an incredibly wide swathe of computer science. His early work at Cambridge in the 1950s included cluster analysis and information retrieval. In the 1960s, he carried out pioneering work on computer architecture and system software. In the 1970s, his work involved distributed computing. In later decades, he devoted considerable attention to security.

In 1997, Roger set up and became first director of Microsoft Research in Cambridge. He was in this position when he died. He is survived by his wife, Karen Sparck Jones.

A memoir and further details of Roger Needham's career can be seen at <http://www.cl.cam.ac.uk/~ksj/RogerNeedham.html>

A few early publications on clustering and classification are as follows.

Research on Information Retrieval, Classification and Grouping 1957-1961, PhD thesis, University of Cambridge, Cambridge Language Research Unit, 1961.

With K. Sparck Jones, "Keywords and clumps", Journal of Documentation, 20, 5-15, 1964.

"Applications of the theory of clumps", Mechanical Translation, 8, 113-127, 1965.

"Automatic classification in linguistics", The Statistician, 17, 45-54, 1967.

With K. Sparck Jones, "Automatic term classifications and retrieval", Information Storage and Retrieval, 4, 91-100, 1968.

**Fionn Murtagh**

### 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.

### News from VOC

The spring meeting of the VOC on March 28<sup>th</sup> 2003 at the Rekenkamer in The Hague was a successful event with about 35 attendants. Six speakers covered nicely a broad range of topics related to ordination and classification. U. Kaymak (Erasmus University Rotterdam) discussed fuzzy clustering in data modeling. M. de Rooij (Leiden University) showed how Euclidean distances can be used for graphical representations. P. Groenen (Erasmus University Rotterdam) presented an appealing application of correspondence analysis to solve a seriation problem in archeology. K. Bollaerts (Leuven University) lively discussed the use of P-spline regression. A. Struyf (Antwerp University) talked about the graphical representation of clusters. T. Snijders (University of Groningen), our keynote speaker, gave a highly informative overview of latent structure models in social network analysis..

The fall meeting in November 2003 will be entirely devoted to Item Response Theory. The year of 2004 will be a very special one for the VOC. A joint meeting with the GfKI will take place from March 9 to 11 in Dortmund, Germany. The 15<sup>th</sup> anniversary of the VOC will be celebrated during a two-day meeting in the fall of 2004. Two groups of enthusiastic VOC members are preparing those two major events. All up-to-date information on the activities of the VOC is available via [www.voc.ac](http://www.voc.ac).

**Marieke Timmerman**

## News from JCS

The 19th Annual Research Meeting of the Japanese Classification Society was held at Renaissance Center, Tama University on March 28, 2003. The program is summarized as the following:

### Invited talks

In this meeting, the following invited talk was presented.

### Measuring Social Networks on the Web

Vasja Vehovar, Valentina Hlebec and Katja Lozar Manfreda (Faculty of Social Sciences, University of Ljubljana, Slovenia)

Much of the contemporary social research is oriented towards the social impact the Internet has on the life of the citizens. In particular, researchers are often discussing, whether the Internet is improving or harming the participation of social relationships. The proposed paper also contributes to this topic as it addresses the ego-centered social networks of the Internet users.

The ego-centered social networks of intensive Internet users were measured within a national RIS Web survey (RIS - Research on Internet in Slovenia, <http://www.ris.org>). There, the respondents were randomly split into four groups. Each group received a name generator for one type of the social support provision: instrumental, informational, emotional support or social companionship. Each respondent also received a set of specific questions related to each person (alter) they named. Around 250 respondents answered the Web questionnaire for each type of social support provision.

The data allow to estimate the size and the structure of ego-centered networks of intensive Internet users. Analysis shows that the network size differs significantly from the general population, however no major differences are found in network composition and structure. The variations across different types of social support provision are also negligible. However, the comparison of the two sub-networks, e.g. the Internet sub-network (alters with whom respondents communicate via the Internet) and the traditional sub-network (alters with whom respondents communicate only via traditional means of communication) shows several variations. The composition of the Internet sub-networks is focused on friends, whereas in the

traditional sub-networks the kin is dominated. On the other side, the two sub-networks do not differ in multiplexity of ties, closeness and importance of alters, but they do differ in the average number of years alters are known to respondents and also in the geographical distance (the Internet sub-networks comprise of alters less long known and with higher percentage of alters living far away). The Internet thus fosters the social networks that are somewhat less traditional: more friends, more geographically distance, and more recent relationships.

### Contributed Papers

As the contributed papers, the eight titles were presented. The abstracts were shown as the following.

#### (1) Automatic Diagrammatization of Text by Abstracting Paragraphs

Takao Ishizuka (Asia University)

Today, we are drifting in enormous information flood and in chronic bad digestion because most information typical of text data have redundant, huge volumes and hardly inspire or contribute our intelligent activities directly. Therefore, many books interspersed with illustrations of diagrams and pictures are published in various fields. Diagrammatization of text is one of the most highly intellectual thinking activities, and automatic diagrammatization is not realized except only manual idea processor software.

We suppose a new method of automatic diagrammatization of text. The procedure is as follows: 1) Paragraphs of text are recognized. 2) Noun words composing sentences in each paragraph are extracted by character codes and preposition words. 3) Common character strings are explored in words list and utilized as abstract concepts. 4) Weighed frequencies of each word are computed. 5) Titles of each paragraph are composed from the maximum frequent word and the key term positioned in last sentence of each paragraph. 6) Titles of each paragraph are classified by extracting common character strings, and a diagram of the object text is completed as some title groups and their relation. Above method is only intra-paragraph optimization. So, TF/IDF and discounted frequency index are introduced for the purpose of total text optimization. We investigated the characteristics of these adjusted indices by response curves for words and paragraphs.

Our technique is heuristic, and yet executable without some word dictionaries and special knowledge of the language and the composition. Heuristics of key term selection must be improved using probability and statistical facts of large amount of text data, e.g. newspaper articles. Evaluation of the abstraction and diagrammatization of text is remained.

## **(2) Analysis of the response to one free question -- Comparison between the use of after-coding and the application of the software called WordMiner --**

Setsuko Takakura (Nagasaki Junshin Catholic University), Mariko Murata (Statistical Information Institute for Consulting and Analysis)

Concerning the free question: "What do you think men and women living together without registering their marriage?" in the survey of "Consciousness of Women's attitude toward independence" executed in 2002, we used two methods of analysis: manual after-coding, and the application of software called WordMiner\*, and compared the results of these two methods. By using after-coding, we could understand the summary of all the responses, but there is some risk of arbitrary interpretation. By analysis with WordMiner, we attained a structural and objective analysis of all the words in the responses but it seems difficult to understand the summary of the responses. It seems that these two ways are complements of each other.

\*WordMiner: This software executes the analysis of data-mining by the application of correspondence analysis and cluster analysis.

## **(3) Analysis of relations between free answer and items about fatigue and stress**

Kiyoharu Doi (Junior College of Osaka Shoin Women's University)

Fatigue and stress were measured by using the three kinds of item scales and the free answer from the male and female university students. The words from free answer were classified as "fatigue", "frustration" and "aggression". Some words about fatigue were identical to the items, but chi-square values between those words and the items were not significant. As for the free answer and the item scales, the parts which were different from the common part might be measured about fatigue.

## **(4) The analysis of the student's self evaluation of the learning achievement in the training institution and the training leader's general evaluation**

Kyoko Sunaga (Kanazawa University), Akio Yasuda (Heiwa Information Center co., Ltd.)

For understanding the learning situation of a student in the training institution and getting a reference of the future, I made a comparison between the self evaluation of the student's practical training with a free description and the training institution leader's general comment by cluster analysis. I grasped acquisition contents and being unstudied profit contents by difference of training configuration peculiar to, lesson important point contents of a leader and result of training from a result. And I got that it was necessary so that a lesson of an important point before training, in training and after training and the examination of affirmation of a training aim with a training leader and a training method planned substantiality of learning of this training before training from consideration of the above-mentioned result of this study.

## **(5) Questionnaire Design and Data Analysis by Facet Approach: A Case of the International Census on Attitudes toward Languages**

Kazufumi Manabe (Kwansei Gakuin University)

The purpose of this paper is to illustrate the utility of the Facet Approach developed by L. Guttman and his group, for questionnaire design and data analysis of the International Census on Attitudes toward the Japanese Language. The Facet Approach is composed of three parts:

(1) Facet Design. This involves the construction (Structuples) and use of Mapping Sentences for questionnaire design.

(2) Facet Analysis. This includes Scalogram Analysis, partial Order Scalogram Analysis, Smallest Space Analysis, Median Regression analysis, and so on.

(3) Facet Theory. The First Law, The Second Law, and the Laws of Polytone Regressions have been proposed and tested in diverse empirical contexts.

I attempt to summarize the basic ideas of the Facet Approach as focusing on these three areas, which I believe are useful for a systematic design of a questionnaire survey. Facet Design can be used to analyze questionnaires to determine the

completeness of information which is gathered. Some examples of such analyses are shown. Facet Theory guides the data analysis because it identifies meaningful and interpretable relations which can be explored statistically. In this part I demonstrate three different kinds of data analysis (Facet Analysis) guided by Facet Theory.

### **(6) Dissatisfaction with the "Japan Company Organization Handbook"**

Keiji Yajima (Tokyo University of Science)

The "Japan Company Organization Handbook" published yearly by Diamond Inc. contains listed 2400 corporation organization charts and branch address lists. The book is valuable to review the present state of organization framework. It would be shown from the book a number of divisions would depend on the business branch size rather than employee extent. It is the inadequate editorial policy that almost 40 percent of companies do not designate a number of departments in the organization chart which subordinate to the division.

### **(7) An Analysis Method for Visual Impression of Natural Texture Images based on Microscopic Shape Features**

Hitoshi Tamura (Tokyo University of Science)

In this research, the method of explaining visual impressions that man receives to natural textured images is proposed. The author hypothesized that impression of a texture comes from a mixture of microscopic shapes and assumed nine characteristic shapes as elements of a basis for texture description. The nine are named respectively as "black roof", "black line", "black snake", "black pepper", "white roof", "white line", "white snake", "white pepper" and "cliff". Then "the shape passed filter bank" which decomposes a continuously gray-leveled natural texture into nine "shape-passed" pictures, is used in the method of explaining visual impression as a feature extractor. Sizes of the microscopic shape are 5×5, 11×11 and 21×21 pixels. Nine shape passed filters were applied to a natural texture image every three sizes, and total of 27 features were obtained. 35 sample images of natural textures are selected, and visual impressions of human perception for the sample images are measured by a questionnaire for 19 students. The questionnaire is composed of seven questions respectively for each sample image. The questions are forms answered strength of each following sense by seven levels, "smooth-rough",

"gloomy-cheerful", "cool-hot", "dry-wet", "soft-hard", "gestational-movement" and "dark-bright".

Then, significant features from a natural texture image are statistically selected from 27 features extracted by the feature extractor to derive a regression function for explaining the visual impressions of the sample texture image.

### **(8) Analysis of Action Speculate in stocks**

Akiyoshi Kondo (Takushoku University)

I was interested to speculate in stocks from a long time ago, but I could not speculate in stocks because I was badly paid and could have no chance. For contributing to profit from my investment in stocks, I calculated some indices which influence the movements in the Japanese stock prices by time series analysis.

**Mariko Murata, Nobuo Shimizu**

## **News from the SFC**

### **Elections**

1. François BRUCKER (Ecole Nationale Supérieure des Télécommunications, Department IASC, Brest, France) has been elected as « Editor of the SFC Bulletin » ([francois.brucker@enst-bretagne.fr](mailto:francois.brucker@enst-bretagne.fr))
2. André HARDY (University of Namur, Statistical Unit, Department of Mathematics, Namur, Belgium) has been reelected as "Secretary" of the SFC ([andre.hardy@fundp.ac.be](mailto:andre.hardy@fundp.ac.be))

### **10th meeting of the SFC**

The 10th meeting of the SFC will be organised in Neuchâtel, Switzerland, in September 10-12, 2003 by the Statistics Group of the University of Neuchâtel. The official language is French.

The classic subjects of the classification will be treated. In particular, the following subjects will be particularly privileged: Classification in the official statistics, Graphs and clusters, Intelligent systems for the cognitive perception, Compared linguistics, Multivariate modelling and Data mining.

The invited speakers are:

Helena Bacelar, Lisbon  
François Brucker, ENST Bretagne  
Jean-François Cardoso, Paris  
Guy Cucumel, Montreal  
Louis Ferré, Toulouse  
Hans Goebel, Salzburg  
Willem Heiser, Leiden  
Ludovic Lebart, Paris  
Djamel Zighed, Lyon 2

A registration form is available at: <http://www.unine.ch/statistics/>. In the same web site you can also download, registration form for accomodation in hotel or in the university campus, and other useful informations will be added soon (program, list of participants, etc.).

Registration fees

|                        | Until August<br>01st, 2003 | After August<br>01st, 2003 |
|------------------------|----------------------------|----------------------------|
| Students               | 100.--                     | 120.--                     |
| SFC SFdS,<br>IFCS, SSS | 200.--                     | 230.--                     |
| Others                 | 230.--                     | 260.--                     |

The prices get in Swiss francs. (Approximately 1 CHF = 0.66 €)

The registration fees include the participation in the sessions, the acts of the congress, the breaks coffee and the dinner of official reception.

The registration fees can be paid by cheque or by credit transfer, at the University of Neuchâtel, Management Bottom of Third Mention Classification 2003. Account number: UBS SA 290-500080.05 H.

### 11<sup>th</sup> Annual meeting of the SFC - Bordeaux

The 11<sup>th</sup> SFC annual meeting will be held in Bordeaux (France), on September 2004. It will be organized by members of the team “Stochastic Processes, Operational Research and Statistics” of the MAB (Applied Mathematical Laboratory of Bordeaux ) of Bordeaux1 and Bordeaux 2 Universities.

**André HARDY, SFC Secretary**  
[andre.hardy@fundp.ac.be](mailto:andre.hardy@fundp.ac.be)

## GfKI Annual Conference

The German Classification Society (GfKI, Gesellschaft für Klassifikation) will hold its 28<sup>th</sup> Annual Conference under the title

### Classification: the ubiquitous challenge

March 9 – 11, 2004 in Dortmund (Germany).

The scientific program will include plenary and semi plenary lectures as well as contributed paper sessions on special topics. This year, it is organized jointly with the Dutch/Flemish Classification Society VOC (Vereniging voor Ordinatie en Classificatie, The Netherlands). The conference will emphasize interdisciplinary research and the interaction between theory and practice.

Conference languages are German and English. A Proceedings volume will be published in English by Springer-Verlag.

Interested persons can obtain further information at the conference website

<http://www.gfki.de/gfki2004/>

and from the organizers. Online registration is recommended.

Participants intending to present a talk are requested to submit an abstract by November 15, 2003 to the local organizer Prof. Dr. C. Weihs, Fachbereich Statistik, Universität Dortmund, via e-mail:

[GfKI2004@statistik.uni-dortmund.de](mailto:GfKI2004@statistik.uni-dortmund.de)

Accepted abstracts will be included in a summary volume that will be distributed to conference participants. Speakers will be notified of acceptance by January 15, 2004. Upon acceptance, a complete manuscript for the proceedings can be submitted. It will have to pass a review process. Formatting instructions for abstracts and manuscripts can be obtained from the above conference website.

The broad range of relevant topics from classification, data science, information systems, and innovative applications is illustrated by the following list of planned sessions:

Theory: Classification, clustering, and data analysis

- Classification (supervised learning),
- Clustering (unsupervised learning),
- Clustering and Classification for time related data, Computational Aspects: algorithms and complexity, Ontology in Software

engineering, History of Clustering and Classification methods, (History of) Statistical Graphics, Data Analysis, Nonparametric Methods, Three-way data analysis, Mixture modelling, Exploratory multivariate analysis

Practice: Clustering/Classification in the following areas

Actuarial Science, Archeology, Biometrics, Biostatistics and Bioinformatics, Engineering, Finance, Fine Arts and Music, Libraries, Linguistics, Marketing, Phylogenomics, Psychometrics, Social Sciences, Sports, Vision, Wearable Electronics, World-Wide-Web

Special Events

- Contest: Social Milieus in Dortmund (see below)
- Celebration: 30 Years Statistics in Dortmund (in German) (March 8, 2004, before the conference)
- Workshop: Statistics in Media (in German) (March 10, 2004)
- Workshop: Multimedia in Education (in German) (March 10, 2004)

Conference city Dortmund: The Heart of Westphalia. Strong on Europe. Westphalia's first city lies on the north-west edge of the Ruhr area. Dortmund Airport provides the town and the region with direct flights to 38 destinations in 13 different countries and to the most important hub airports in Europe. Other nearby international airports are Düsseldorf and Cologne/Bonn. Dortmund is one of Germany's most important railway stations. There are 130 EC, IC and ICE trains to other large cities in Germany and Europe. Dortmund is also right at the centre of the European motorway network. Seven regional and supra-regional motorways meet in Dortmund. For further information on how to get to the university, see the appropriate link at the above conference website.

Social program: An attractive social program related to the Ruhr area is planned: Guided tours through the "German Occupational Safety and Health Exhibition (DASA)", the "German Mining Museum (DBM)" in the near by city of Bochum (incl. a visit of an original subterranean mine), and the "Steel Cooking Plant Hansa", a former industrial complex, as well as a guided trip through Dortmund, Bungee jumping from the Dortmund television tower, and a visit of a brewery.

## Special Event "Conference region related" Contest "Social Milieus in Dortmund"

The GfKl would like to start a series of contests in which optimal mathematical–statistical solutions to practical problems are searched for. In the beginning of the series the contest is about a problem related to the region in which the conference takes place, the classification of "Social Milieus in Dortmund". The problem is, however, also of general importance, especially for other big cities.

For this contest the city of Dortmund prepares data about

- population structure,
- unemployment,
- no. of employees,
- no. of welfare recipients,
- motoring, and
- building structure

for 170 statistical subregions of Dortmund. Participants might even add other relevant data.

There will be two prizes, both worth 500 €:

- one prize for the mathematically best solution,
- one prize for the most relevant solution for the city of Dortmund.

The mathematically best papers will be presented in an extra session at the conference. The winner of the price of the city of Dortmund will present his/her solution at a special plenary talk.

Detailed information including Data will be available on the conference website

<http://www.gfkl.de/gfkl2004/>

from End of May 2003 on. Deadline for Results:  
November 15, 2003

**Claus Weihs**

## GfKI Conference

The traditional Fall Meeting 2003 of the Working Group "Data Analysis and Numerical Classification" (AG-DANK) will take place at the University of Düsseldorf; the meeting is invited and organized by Prof. Dr. Godehardt. A focus will be the analysis of micro array data. Further information is available at:

<http://stoch.fmi.uni-passau.de//agdank/Duesseldorf2003/>

### Gunter Ritter

E-mail: [ritter@fmi.uni-passau.de](mailto:ritter@fmi.uni-passau.de)

<http://www.stochastik.fmi.uni-passau.de>

## CSNA Conferences

### CSNA 2003 / TALLAHASSEE, FLORIDA, 12-15 JUNE 2003

This year's CSNA meeting will take place from Thursday to Sunday, 12 to 15 June, 2003, at Florida State University, Tallahassee, Florida. The local host is Professor Mike Brusco, [mbrusco@cob.fsu.edu](mailto:mbrusco@cob.fsu.edu), Marketing Department, College of Business, Florida State University, Tallahassee, FL 32306-1110, telephone 850-644-6512, Fax 850-644-4098. The conference Webpage is at

<http://garnet.acns.fsu.edu/~mbrusco/csna.htm>

The conference will begin on Thursday, June 12 with short courses. Professor William Shannon, School of Medicine, Washington University, St. Louis, will present the morning short course, an Introduction to Microarrays and Clustering. Professor Bernie Harris, Department of Mathematics and Statistics, University of Nebraska, Lincoln, will present the afternoon short course, Combinatorial Methods for Verification Of Cluster Analyses.

There will be a reception on Thursday evening. On Friday and Saturday there will be contributed and invited papers on a wide variety of topics.

The conference will conclude with sessions in the morning of Sunday, 15-June.

Beginning on Wednesday, 11-June, one day before the CSNA meeting, there will be a meeting sponsored by DIMACS, the Center for Discrete Mathematics and Theoretical Computer

Science, Rutgers University, New Brunswick, NJ.

This meeting, Working Group on Algorithms for Multidimensional Scaling II, is a follow-up to a previous MDS Algorithms Workshop held in August, 2001, at Rutgers.

The workshop will continue on Thursday, 12-June.

On Friday morning, 13-June, there will be a Joint CSNA / DIMACS session, chaired by Doug Carroll, in which Professor Lawrence Hubert of the University of Illinois, Urbana-Champaign, will present "The Representation of Proximity Matrices by Tree Structures: A Tree Structure Toolbox (TST) for MATLAB."

The Webpage for the workshop is

<http://dimacs.rutgers.edu/Workshops/Scaling2>

### INVITED SESSION AT JSM 2003

CSNA will sponsor an invited session at JSM 2003, the Joint Statistical Meetings of the American Statistical Association and related societies, 3 - 7 August, 2003, San Francisco, California. The session is on Bayesian Modeling of Social Networks, with talks by Pip Pattison, Mark Handcock, Adrian Raftery, and Stan Wasserman.

### IFCS-2004 CONFERENCE, 15-19 JULY 2004, Chicago, Illinois, USA

The 2004 conference of the IFCS will be hosted by CSNA and will be held on the campus of the Illinois Institute of Technology (IIT). The Chicago arrangements committee is headed by Professor Buck McMorris, Chair of the Mathematics Department at IIT. McMorris and David Banks (Past President of CSNA, now at the U.S. Food and Drug Administration and soon to be joining Duke University) are Program Co-Chairs.

The CSNA 2004 meeting will be combined with this meeting.

The meeting is scheduled for Thursday to Monday, 15 to 19 July, 2004. Further details appear elsewhere in this Newsletter.

### Stanley L. Sclove

CSNA Secretary/Treasurer

[slsclove@uic.edu](mailto:slsclove@uic.edu)

# XIV International Symposium on Mathematical Methods Applied to the Sciences

Javier Trejos (Chairman)  
[jtrejos@cariari.ucr.ac.cr](mailto:jtrejos@cariari.ucr.ac.cr)  
Walter Mora (Webmaster) [wmora@itcr.ac.cr](mailto:wmora@itcr.ac.cr)

February 17-20, 2004, San José, Costa Rica  
<http://www.itcr.ac.cr/simmac/>  
<http://www.emate.ucr.ac.cr>

The Central American and Caribbean Society of Classification and Data Analysis (SoCCCAD) was born on 2000 during the International Symposium on Mathematical Methods Applied to the Sciences (SIMMAC). Since that date, the SoCCCAD has made four Meetings: two in Costa Rica and two in Mexico. Next one will be in September at Havana, Cuba during the 6<sup>th</sup> International Conference on Operations Research ([sira@matcom.uh.cu](mailto:sira@matcom.uh.cu)).

At the XIV SIMMAC will take place the sixth SoCCCAD Meeting. All the members of the IFCS are invited to participate at this activity, which is the most important scientific one on Applied Mathematics in Central America, and it takes place every two years since 1978.

## Topics:

Data Analysis, Multivariate Statistics, Clustering and Classification  
Probability, Stochastic Processes, Financial Mathematics  
Optimization, Operations Research, Approximation, Numerical Analysis  
Applications in the above topics

For submitting a short course or a communication, please visit our Website for instructions. Deadline: 15 October 2003. Languages: English and Spanish.  
Send the abstract to: [jtrejos@cariari.ucr.ac.cr](mailto:jtrejos@cariari.ucr.ac.cr)

## Registration:

Please visit our Website for prices and deadlines. There are special fares for Central Americans and students.

## Further information:

On the Website you can find the Scientific Committee, Organizing Committee, how to reach the place of the Symposium, hotel information, touristic information, and other useful information.

The preliminary program will be available by the beginning of January 2004.

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

[jajuga@manager.ae.wroc.pl](mailto:jajuga@manager.ae.wroc.pl)

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

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