International Federation of Classification Societies Newsletter

President: Akinori Okada   Number 53   March, 2016

Editor: Paul McNicholas

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 Carribean Society of Classification and Data Analysis, The Classification Society, Classification and Multivariate Statistics Group of the Hungarian Statistical Association, Gesellschaft für Klassifikation, Greek Society of Data Analysis, Irish Pattern Recognition and Classification Society, Japanese Classification Society, Korean Classification Society, Moroccan Classification Society, Société Francophone de Classification, Multivariate Data Analysis Group of the South African Statistical Association, Multivariate Statistics and Classification Group of the Spanish Society of Statistics and Operations Research, Società Italiana di Statistica, Statistical Society of Slovenia, 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 two journals: *Advances in Data Analysis and Classification* and the *Journal of Classification*.

IFCS Homepage: http://www.ifcs.info

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Words from the IFCS President

It is my great pleasure to serve the IFCS as President, and to contribute my first words as President. I have the honour to succeed Maurizio Vichi, who has served in the role of President for the last two years. Maurizio has been an excellent President and worked very hard. I look forward to Maurizio's contribution to the Executive Committee as Past-President. I welcome Berthold Lausen, Presideint-Elect, who is going to succeed to the presidency in 2018. Berthold is a distinguished scientist and an excellent President of the German Classification Society. I would like to express my sincere thanks to Iven Van Mechelen for his long service on the Executive Committee, which has recently come to an end. I appreciate Iven's thoughtful and painstaking contributions to the Executive Committee as well as the Federation for the past 10 years as Past-President, President, President-Elect, and Treasurer.

I would like to thank Christian Hennig, who has worked very hard and made a magnificent contribution to Federation as Secretary. I am very

pleased that Nema Dean continues to serve the Executive Committee as Treasurer. Nema has made excellent and valuable contributions as Treasurer in the last two terms. I am very happy that Paul McNicholas remains on the Executive Committee as Publication Officer. Paul has been an excellent and active Publication Officer in the last two terms. Maurizio Vichi, Berthold Lausen, Christian Hennig, Nema Dean, Paul McNicholas and I are on the IFCS Executive Committee in 2016-2017. I look forward to collaborating with them. The Executive Committee will work hard to develop the Federation by expanding its scientific horizons, both theoretically and practically, over the next two years.

Plans and preparations are in progress for the next IFCS meeting, IFCS 2017. The meeting will be held in Tokyo, August 8-10, 2017, and more information will be in Newsletter and the IFCS website[1]. The Open Conference System (OCS), which was used for IFCS 2015 in Bologna, will be used to organize the meeting. The meeting will be held at Takanawa Campus of Tokai University, which is near Shinagawa, one of the downtowns in Tokyo, and has direct access from two airports in the Tokyo area by railway or bus. The meeting is organized by Tokai University in cooperation with the Japanese Classification Society. I have visited the planned conference site three times and spoken with the local organizers, Tadshi Imaizumi and Yoshiro Yamamato. The Japanese Classification Society successfully had its Annual Meeting at the planned conference site in February. I think IFCS 2017 will be very successful at this site.

Akinori Okada
IFCS President

News from the IFCS Secretary

On 31 January 2016, the term of the IFCS President Maurizio Vichi ended, and Akinori Okada (JCS) took over as the new IFCS President. The IFCS Council elected Berthold Lausen (GfKl) as new President-Elect. Berthold Lausen will become IFCS President in 2018. He is also now member of the IFCS Executive Committee, replacing the former Past-President Iven van Mechelen.

In December 2015, the IFCS Council approved the IFCS membership of the Classification and Multivariate Statistics Group of the Hungarian Statistical Association (HSA-CMSG) with 24 votes for approval and no votes against. The President of the HSA-CMSG is Eva Laczka, and the IFCS Council Representative is Roland Szilagyi. The Italian CLADAG have a new President, Salvatore Ingrassia. Their IFCS Council Representatives are now Andrea Cerioli and Francesco Palumbo. The new President of the Greek GSDA is Giannoula Florou presiding over a new Board with five members. Their IFCS Representative is Theodore Chadjipantelis.

The IFCS Executive Committee met on 17 December 2015 and on 24 March 2016. Here are some items discussed there. There will be a session hosted by the Japanese Classification Society on the COMPSTAT conference in Oviedo, 23-26 August 2016. Hans-Hermann Bock, the winner of the IFCS Research Medal at the 2015 conference in Bologna, has used his award to fund a prize for data analysis that supports research on breast cancer related cancer, which will be awarded on the IFCS 2017 conference in Tokyo. Organisation of the IFCS 2017 conference including awards and the forming of the Scientific Programme Committee is currently a central issue for the Executive Committee.

We will also continue to discuss potential changes of the IFCS Constitution regarding the "group at large" and regarding the requirement for members of the IFCS committees to be representatives in the Council, which sometimes makes it necessary to change committee members despite their term not being fulfilled. We are also working on putting more contact details of the presidents and representatives of the member societies on the IFCS webpage, which furthermore will have a page for events organised by the member societies.

Please continue to inform me of any current elections and nominations in the member societies so that I can keep the IFCS directory up to date. My best wishes go to all readers for the time until the next newsletter. I wish you all a good year 2016.

Christian Hennig
IFCS Secretary

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[1] http://ifcs.boku.ac.at/_conference/index.php/ifcs2017/ifcs2017

News from the IFCS Publication Officer

I am delighted to have to modify the layout on the first column of the newsletter to accommodate our growing federation! Many thanks to everyone who has contributed to this newsletter. As Akinori Okada's term as IFCS President begins, I wish him all the best in this very important role.

Paul McNicholas
IFCS Publication Officer

The Classification Society Distinguished Dissertation Award

Each year, the Classification Society offers a Distinguished Dissertation Award for an outstanding Ph.D. dissertation on the theme of clustering, classification, or related areas of data analysis, encompassing associated theory and/or applications. Several nominations of high quality were received for the 2016 award (for a dissertation completed in 2015). As chair of the award committee, I am delighted to announce that the winner of the 2016 award is

> Zsuzsa Bakk, Tilburg University, The Netherlands, for a thesis entitled *Contributions to Bias Adjusted Stepwise Latent Class Modeling*,

and honourable mention goes to

> Samuel Ventura, Carnegie Mellon University, USA, for a thesis entitled *Large-Scale Classification and Clustering Methods With Applications in Record Linkage*.

Drs. Bakk and Ventura have been invited to speak at a special session of the Classification Society annual meeting, which will be held at the University of Missouri, Columbia, USA, from June 1-4.

I would like to extend my thanks to Kathleen Gates and Herbie Lee for serving with me on the award committee. Details about nominations for the 2017 award (for a dissertation completed in 2016) will be available later this year.

Paul McNicholas

News from CLAD

JOCLAD 2016
The XXIII Annual Meeting of the Associação Portuguesa de CLassificação e Análise de Dados (CLAD) will be held from March 31 to April 2, 2016, at the *Universidade de Évora*, the second oldest university in the country. JOCLAD 2016 will emphasize some of the main goals of CLAD: promoting and developing research in classification and data analysis area; encourage national scientific production, in both theoretical and applied aspects; improve cooperation, discussion and scientific exchange between data scientists and researchers from other sciences and application fields (e. g., environment, health, biology, sociology, demography, business, finance and statistics); strengthening CLAD's role and cohesion. The meeting will also be an opportunity to visit wonderful places in Alentejo. Évora is the capital of the Alentejo region, a UNESCO World Heritage Site and a member of the Most Ancient European Towns Network.

The JOCLAD 2016 scientific program includes two short courses, three plenary invited lectures, four thematic sessions, four contributed paper sessions in parallel and two poster sessions. Short courses will take place March 31 morning: *Amostragem em populações de difícil acesso* (Russell Alpizar-Jara and Anabela Afonso, Universidade de Évora, Portugal) and *Introduction to Multidimensional Scaling Models* (José Fernando Vera, Universidad de Granada, Spain).

JOCLAD 2016 plenary invited lectures are the following: *Appreciating Spatial Statistics through case studies with a focus on health under environmental and natural conditions* (**A**lfred Stein, University of Twente, Netherlands), *Cluster Multidimensional Scaling for large proximity datasets* (José Fernando Vera, Universidad de Granada, Spain), *Religião, Fogos e Estatística: ponto de encontro* (Antónia Turkman, Universidade de Lisboa, Lisboa, Portugal). The authors of the best research papers presented at the Conference are invited to submit full papers for publication in the next issue of CLAD's Book Series. Further information is available at http://www.clad.pt/.

CLAD sponsored courses

Following the series of CLAD sponsored courses, the next short course, *Análise de séries temporais – introdução e aplicações em R* (Isabel Silva Magalhães, Universidade do Porto, Portugal), will take place June 4 at IST, Universidade de Lisboa, Lisboa, Portugal.

Helena Bacelar-Nicolau

News from GfKl
Data Science Society

The 40th Annual Meeting of the GfKl was held at the 4th DAGStat conference in Göttingen from14-18 March 2016. GfKl is a founding member of the Deutsche Arbeitsgemeinschaft Statistik (DAGStat), which is a consortium of scientific societies and professional associations that regard the further development of statistical theory and methodology as their primary interest. DAGStat conferences are organized every three years. The DAGStat2016 conference included annual meetings of the German Region of the International Biometric Society (Biometrisches Kolloquium) and the German Statistical Society (Pfingsttagung) as well.

The conference was attended by more than 700 participants, plenary talks were Peter Rousseeuw (University of Leuven) *Detecting cellwise outliers*, Hans Rudolf Künsch (ETH Zürich) *Numerical weather prediction and statistics*, Simon Thompson (University of Cambridge) *Mendelian randomization: its potential and limitations* and Adalbert Wilhelm (Jacobs University Bremen) *Data-Driven Classification in the Social Sciences*. More details (program booklet, etc.) are available via the conference webpage http://www.uni-goettingen.de/en/485701.html. The DAGStat medal was awarded to three fellows for their distinguished contribution to the field: *Hans-Hermann Bock*, *Hans-Jürgen Läuter* and *Peter Wilrich*. The GfKl best paper award – methods – was given to Andre Burkovski for contributing the outstanding paper "Ordinal prototype-based classifiers" to the European Conference on Data Analysis (ECDA2015), 39th Annual Conference of the GfKl, in Colchester, UK, September 2-4.

The general assembly of the GfKl elected as executive board of the society (2016-2019):

Berthold Lausen (president), Hans Kestler (1st vice president), Daniel Baier (2nd vice president), Andreas Geyer-Schulz (treasurer), Eyke Huellermeier, Sabine Krolak-Schwerdt, Adalbert Wilhelm.

Berthold Lausen

News from JCS

(I) The 34th Annual Meeting of the Japanese Classification Society

The 34th Annual Meeting was held on February 29th and March 1st, 2016 at Tokai University, Takanawa Campus in Tokyo. The chairperson of the organizing committee was Yoshiro Yamamoto (Tokai University). There were twelve talks; the speakers and the titles of their talks were as follows:

- *Comparison of hierarchical cluster analysis method in consideration of adjacency relationship of unit of SOM*, Yo Kameoka, Yoshiro Yamamoto (both of Tokai University).
- *A Model of Cluster Loading and Its Application for a Variable Selection of High Dimension Low Sample Size Data*, Jiaxin Chen, Mika Sato-Ilic (both of University of Tsukuba).
- *Kernel k-means based on Discriminant Function*. Yosuke Tsuji, Mika Sato-Ilic (both of University of Tsukuba).
- *Fuzzy clusterwise generalized structure component analysis based on regularization*, Yoji Yamashita, Kensuke Tanioka, Hiroshi Yadohisa (all of Doshisha University).
- *Three-way principal component analysis with a sparse core array – comparison with factor rotation techniques*, Hiroki Ikemoto and Kohei Adachi (both of Osaka University).
- *Principal Components based Variable Selection for Data with External Criteria*, Toshiki Yamamoto, Mika Sato-Ilic (both of University of Tsukuba).
- *Analyzing Competitive Relationships in Brand Switching Using Advantageous and Disadvantageous Aspects of Brands*, Akinori Okada (Tama University), Hiroyuki Tsurumi (Yokohama National University).
- *Analysis using Association Plot for Medical data*, Sanetoshi Yamada, Yoshiro

Yamamoto, Kazuo Umezawa, Satomi Asai, Masanori Hashimoto, Hayato Miyachi, Sadaki Inokuchi (all of Tokai University).

- *Discussion of the classification method of the tendency for each of the sales of the products of stores*, Katsuya Kono, Yoshiro Yamamoto (both of Tokai University).
- *Analysis Exploited Classification Structure for the Population Decline of Remote Islands*, Shota Yoshimoto, Mika Sato-Ilic (both of University of Tsukuba)
- *Classification of the Ability to Understanding Statistics – Using the JSSC Examination Answers Data*, Jun Ttuchida, Masaki Okabe, Hiroshi Yadohisa (all of Doshisha University)
- *Trial of university classification in Japan based on Daigaku Portrait database*, Masami Nishizawa, Naoya Todo, Yuan Sun (all of National Institute of Informatics)

There also took place a panel discussion about "Classification in the Era of Big Data", commemorating the IFCS 2017 meeting, which was moderated by Fumitake Sakaori (Chuo University). Also, a workshop about Kokyaku Rikai notameno makethingu data bunseki [Marketing Data Analysis for Customer Understanding] was held on February 29th. The organizer was Yuki Toyoda (Hosei University) and the lecturers were Yuki Toyoda (Hosei University) and Tadahiko Sato (University of Tsukuba).

(II) Publication of the Journal
The Volume 5 Number 1 of the Journal of the Japanese Classification Society, Deta Bunseki no Riron to Oyo [Bulletin of Data Analysis], was successfully published in the last March (all papers are written in the Japanese language).

(III) Information about the 35th Annual Meeting of the Japanese Classification Society
The 35th Annual Meeting will be held at the beginning of March 2017 at Hosei Business School of Innovation Management, Hosei University, Tokyo. The chairperson of the organizing committee is Yuki Toyoda (Hosei University). For additional information, please visit our website at http://www.bunrui.jp/.

Satoru Yokoyama

News from the VOC

Dear IFCS Member, the VOC would like to invite you to its fifth VOC conference will take place on Friday the 27th of May in Tilburg (The Netherlands). The deadline for abstract submission is the 30th of April. A keynote talk will be given by Eric Postma, coordinator of the Business and Governance Master's program in Data Science and professor in Artificial Intelligence at Tilburg University, on "The Return of Neural Networks". Junior researchers are especially encouraged to contribute; hence, participation is free for PhD students (and VOC members). Also this year the VOC awards a *Best Student Presentation Award*; for enrollment and abstract submission go to http://www.voc.ac/index.php?type=5. On behalf of the organizing committee,

Katrijn Van Deun

News from The Classification Society

The 2016 Annual Classification Society Conference will be held at the University of Missouri-Columbia from June 1-4, 2016. Further details and announcements will be posted at www.classification-society.org.

Hans-Friedrich Köhn

MBC^2: Call for Papers

The Third International Workshop on Model-Based Clustering and Classification will be organized by the Department of Economics and Business of the Univerisity of Catania (Italy) and will take place in Catania on September 5-7, 2016. The workshop aims to providing a focus on state-of-the-art research in the field of model-based clustering and classification as well as a forum of scientific discussions and comparisons among young and senior researchers. Topics concern methodological, applied and computational issues in model-based clustering and classification. The workshop will take place with the support of the Italian Statistical Society and the Classification and Data Analysis Group (CLADAG). Interested people are invited to submit an abstract and some background literature by May 7, 2016. For more information,

visit the website http://mbc2.unict.it or contact mbc2@unict.it

Salvatore Ingrassia

Foundation of the "European Association for Data Science (EuADS)"

In July 2013 the first *European Conference on Data Analysis* took place in Luxembourg. During the conference a group of internationally well-renowned scholars suggested to found the *European Association for Data Science (EuADS)*. The foundation took place in August 2015.

Scope
The *EuADS* is a multidisciplinary association for data science that comprises among the major disciplines Biomedicine, Computer Science, Economics, Educational Sciences, Engineering, Linguistics, Machine Learning, Marketing, Mathematics, Medical and Health Sciences, Psychology, Sociology and Statistics. This multidisciplinarity finds its expression in the collaboration of people from the National Institute of Statistics and Economics STATEC, the Luxembourg Institutes of Social-Economic Research, Science and Technology as well as Health, the German Classification Society (Gesellschaft für Klassifikation; *GfKl*) and the University of Luxembourg which gives home to the *EuADS*.

The *EuADS* aims to provide a setting for fostering communication and cooperation among all stakeholders of data science. It is a forum for research, scientific conduct, promoting transparent access to data, policy making as well as support of young scientists. Scientifically, the association promotes the development of models, methods and instruments of data science and provides an environment for the presentation and discussion of new methods and models in this field. With regard to networking, it aims to bring together stakeholders and decision-makers in this field to address the challenges of data science.

Thematic concerns of the *EuADS* are the mathematical foundations of data science and the computational and statistical methods of data analysis, the processing of statistical or conceptual information, and the construction of data bases and information (retrieval) systems with the goal of discovering useful information and extracting generalizable knowledge from data. It focuses on topics such as structural and quantitative approaches for the analysis of data; advances in analytics, classification, clustering, and pattern recognition methods; strategies for modeling complex data and mining "big" data or large data sets; methods for the extraction of knowledge from numerical or textual, structured and semi-structured data, and applications of advanced methods to specific domains of practice. The association's work supports advances in theory and methodology on one hand, while making new domain-specific knowledge available from data through the skillful use of data analysis methods, on the other hand.

Activities
The *EuADS* aims to establish a network of renowned experts in the realm of data science. It brings together successful stakeholders in the field of data science to provide a state-of-the-art knowledge base, to initiate new developments, to promote transparent access to data, and to advise policy makers. Future activities will include summer schools, thematic workshops and participation in the European Conferences on Data Analysis.

After its foundation the *EuADS* participated in the *European Data Forum (EDF)* which took place on November 16-17 in Luxembourg. In November 2016 the *EuADS* plans a kick-off meeting which will take the form of a conference for nationally and internationally renowned stakeholders in the field of data science.

The *EuADS* welcomes contributions from potential members, sponsors or anyone interested in data science and its role and development in the 21st century. Further information may be found under www.EuADS.org

Sabine Krolak-Schwerdt
Berthold Lausen
Hilmar Schneider
Myra Spiliopoulou
Claus Weihs

Upcoming Conferences and Meetings

May 2016

VOC Spring Meeting, May 27, Tilburg, The Netherlands. http://www.voc.ac/index.php?type=5

June 2016

The Classification Society annual meeting, June 1-4, University of Missouri, Columbia, MO, USA. www.classification-society.org

July 2016

Statistical Computing 2016, Schloss Reisensburg, Günzburg, Germany, July 17-20. http://sysbio.uni-ulm.de/ocs/index.php/statcomp/statcomp16

September 2016

MBC^2, the Third International Workshop on Model-Based Clustering and Classification, Catania, Italy, September 5-7. http://mbc2.unict.it

German-Japanese Symposium 2016, Schloss Reisensburg, Günzburg, Germany, Sept. 12-13. http://sysbio.uni-ulm.de/ocs/index.php/GJW/GJW16

March 2017

35th Annual Meeting of the Japanese Classifciation Society, Hosei Business School of Innovation Management, Hosei University, Tokyo. http://www.bunrui.jp/

Looking Ahead to IFCS Newsletter Number 54

Contributions for the forthcoming issue of the IFCS newsletter should be sent to Paul McNicholas, IFCS Publication Officer, at mcnicholas@math.mcmaster.ca by September 24.

Plain text or Word files are preferred.

Thanks!

Paul McNicholas

IFCS Publication Officer