



International Federation of Classification Societies Newsletter

President: Akinori Okada

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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 Caribbean 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>

Contents

Words from the IFCS President
News from the IFCS Secretary
News from the IFCS Publication Officer
Report on IFCS 2017
Report from IFCS Awards Committee
IFCS-2019: First Announcement and Call for Papers
Call for Nominations: Classification Society Distinguished Dissertation Award
News from CLAD
News from the JCS
News from The Classification Society
News from SKAD
News from GfKl
Cluster Analysis Benchmarking: Two IFCS Challenges
Fourth German-Polish Seminar on Data Analysis and Applications
Fourth European Conference on Data Analysis
Upcoming Conferences and Meetings

Words from the IFCS President

The IFCS biennial conference, IFCS 2017, was held from August 8 through 10 in Tokyo, Japan and was a terrific success. At the conference, a total of 256 papers were presented. The total number of participants was 316 from 26 countries; this includes 189 participants from six Asian countries, 144 of who came from Japan. Highly distinguished researchers gave five plenary talks. I would like to thank the Scientific Program Committee and the Local Organizing Committee for organizing such a successful conference. I especially thank Tadashi Imaizumi, Sadaaki Miyamoto, Yoshiro Yamamoto, and Fumitake Sakaori for their excellent contributions in creating a wonderful scientific program as well as other marvelous activities at the conference. My appreciation also goes to the IFCS Awards Committee for their magnificent work in

choosing award laureates. I especially appreciate the work of Shizuhiko Nishisato, who chaired the IFCS Awards Committee with great distinction. The IFCS Research Medal for outstanding research achievements, Chikio Hayashi Awards, the Student/Postdoctoral Fellow Paper Competition and Travel Award, and the Helga and Wolfgang Gaul Stiftung Award were awarded to six excellent researchers. Helga and Wolfgang Gaul Stiftung Award was donated by Helga Gaul and Wolfgang Gaul, and this is the inaugural year of the award. I express my heartiest appreciation to Helga Gaul and Wolfgang Gaul in this regard.

Overall, our experience of having the conference fee in Japanese Yen was positive and it protected against the risk caused by the fluctuation in other currencies, most particularly the Euro and the US Dollar. For example, we saw about 20% decrease of the value of the Euro and the US Dollar to the Japanese Yen from 2015 to 2016. Our experience suggests that using the local currency might be a good option for future IFCS meetings not held inside the Eurozone or the United States. I would like to take this opportunity to say that from 2014 to 2016 the impact factor of *Journal of Classification* increased from 0.727 to 3.083, and that of *Advances in Data Analysis and Classification* increased from 1.026 to 2.326. These figures indicate the very high quality of papers appearing in the two journals. I would like to extend my congratulations to the respective editorial boards. The next IFCS Conference, IFCS-2019, will take place August 26-29, 2019 at Thessaloniki, Greece. The Conference Chair is Theodore Chadjipadelis at the Aristotle University of Thessalonik. The Greek Society of Data Analysis will host the IFCS 2019. I hope to express heartiest thank to the Greek Society of Data Analysis and to Giannoula Florou, the president of the Greek Society of Data Analysis, for hosting the IFCS-2019.

This is my last contribution to the Newsletter as the President of the International Federation of Classification Societies because my term as the President (2016-2017) is coming to an end. It has been a privilege and a pleasure to serve as the President over the past two years. I express my deepest appreciation for the support and help given by the other members of the Executive Committee: Maurizio Vichi, Berthold Lausen, Christian Hennig, Paul McNicholas, and Sugnet

Lubbe as well as Nema Dean, the former Treasurer of the IFCS who served until the end of 2016. I really enjoyed working with them, and I would like to thank them again for their encouragement and friendship. My successor will be Berthold Lausen who is a highly competent person and will be an excellent President. I believe the Federation will continue to succeed in contributing to new developments in the field, which we are changing and are going to continue to change.

Akinori Okada
IFCS President

News from the IFCS Secretary

After the IFCS conference in Tokyo, on which there were meetings of the Executive Committee (EC) and the IFCS Council, the EC met again on 1 November. At the Council meeting, the EC had proposed amended changes to the IFCS Constitution and Election Rules. An earlier version had not found enough votes in the Council (although there had not been any negative votes). The number of Representatives present at the Council meeting did not suffice to decide Constitution changes, and therefore the changes again were not decided. The EC is now working on a further amended version that will be proposed to the Council for discussion soon. There was already some discussion at the Council meeting, and as a result of this, the new proposal will only ask members of the Election Committee to be Council members at the time at which they become members of the Election Committee. Also fixing the minimum number of 150 members of a Member Society required for having two Council Representatives (and paying higher IFCS dues) in the Constitution will be part of the proposal.

There will soon be elections of a new President Elect and a new Publication Officer. Apart from this, the EC discussed the IFCS-2019 in Thessaloniki, particularly potential chairs of the Scientific Programme Committee, and potential hosts of IFCS-2021. Another project is a new geographical visualization of the IFCS Member Societies and potentially their members. Ideas for this will be discussed in future meetings. Please note that the IFCS Directory needs to contain updated information on the Societies' Presidents, Treasurers, Council Representatives (names,

email addresses and terms of office). Any change should be emailed to the IFCS Secretary (c.hennig@ucl.ac.uk). Currently some information is outdated despite having sent reminder emails; can I please ask the corresponding Societies to send me the updated information? With all the best wishes for the festive season,

Christian Hennig
IFCS Secretary

News from the IFCS Publication Officer

First of all, I would like to extend my personal gratitude to Tadashi Imaizumi and his team for organizing an unforgettable IFCS meeting in Tokyo. I write this as I come to the end of my second, and final, term as IFCS Publication Officer. This will be my last newsletter and I am grateful to all of those who have contributed to it. I have thoroughly enjoyed working on behalf of IFCS over the past six years, and I would like to extend my thanks to everyone who has made it an enjoyable experience. I am looking forward to my term as President of The Classification Society, which begins in January, and I hope to see you at CS 2018 in New York next June!

Paul McNicholas
IFCS Publication Officer

Report on IFCS 2017

The last IFCS conference, IFCS-2017, was hosted by the Japanese Classification Society at Takanawa Campus of Takai University in Tokyo, it was held from August 7th to August 10th. Yoshiro Yamamoto (Tokai University) chaired the Local Organizing Committee and I (Tama University) chaired the Scientific Program Committee, with Sadaaki Miyamoto (Tsukuba University) as the vice-chairperson. I was honoured to do this having previously served the Japanese Classification Society as President. This conference saw over 316 participants from across the country and from around the world, specifically 189 participants from six Asian countries. As usual, the Conference program was organized over plenary invited sessions, specialized sessions and contributed paper sessions. Tomoyuki Higuchi (Japan), Marieke E. Timmerman (The Netherlands), Irini Moustaki

(UK), Cinzia Viroli (Italy) and Christian Hennig (UK) delivered plenary talks. One further plenary session, the IFCS Presidential Address, was delivered by Akinori Okada (Japan). The total number of contributions was 256, including 16 posters. The efforts of our colleagues of the Japanese Classification Society made this conference such a success. The high quality of the contributions was assured by the work of all members of the Scientific Program Committee. Our deepest gratitude goes to all of them. Special thanks must be addressed to Fumitake Sakaori (Chuo University) who has supported the participants via the IFCS 2017 conference website. A post-proceedings volume will be edited by Tadashi Imaizumi, Akinori Okada, Sadaaki Miyamoto, Fumitake Sakaori, Yoshiro Yamamoto, and Maurizio Vichi and will be published by Springer in the prestigious series on Studies in Classification, Data Analysis and Knowledge Organization (ISSN: 1431-8814). Authors are invited to submit their contributions via the conference website <http://ifcs.boku.ac.at/conference/index.php/ifcs2017/ifcs2017>. The deadline for submitting up to 12 pages is November 30th.

Tadashi Imaizumi

Report from IFCS Awards Committee

This was the inaugural year of the Helga and Wolfgang Gaul Stiftung Award. Therefore, the awards committee handled this award plus the IFCS Research Medal, the Chikio Hayashi Award, and Student/Postdoctoral Fellow Paper Competition and Travel Award. The awards committee consisted of Hans-Hermann Bock (Germany), Jean Diatta (France), Shizuhiko Nishisato (Canada, Chair), Stanley Sclove (USA), Iven Van Mechelen (Belgium) and Donatella Vicari (Italy), with Christian Hennig (United Kingdom, IFCS Secretary) as ex-officio member. The committee chose the following award winners:

- IFCS Research Medal: Geoffrey J. McLachlan (Australia).
- Chikio Hayashi Award: Michio Yamamoto (Japan), Renato Cordeiro de Amorim (United Kingdom), and Jeffrey L. Andrews (Canada).
- Helga and Wolfgang Gaul Stiftung Award: Johané Nienkemper-Swanepoel (South Africa).

- Student/Postdoctoral Fellow Paper Competition and Travel Award: Mr. Kohei Uno (Japan).

At the awards ceremony in Tokyo, chaired by Yasumasa Baba, the benefactors Helga and Wolfgang Gaul presented their first award to the winner. The chair of the awards committee also introduced to the audience the winner of the BRACA award, Corinna Ernst (Germany) who received the award at the annual meeting of the GfKI in February 2017. The awards committee forwarded a number of recommendations about the procedures and criteria for awards decisions to the President and the Executive Committee of IFCS for future consideration.

Shizuhiko Nishisato

IFCS 2019: First Announcement and Call for Papers

The 2019 conference of the International Federation of Classification Societies (IFCS) will be held at Makedonia Palace Hotel, Thessaloniki, Greece from August 26 to 29, 2019. The conference theme will be 'Data Analysis and Rationality in a Complex World'. On August 26, pre-conference workshops will be held. The conference itself will start on August 27 in the morning, and will close on August 29 with a full day conference program and a conference dinner. The conference will include a President's invited session and a Presidential address, invited presentations, invited and contributed sessions, and poster sessions. The following awards and medals ceremony will be scheduled at the conference.

- Helga and Wolfgang Gaul Stiftung Award (age < 30)
- Chikio Hayashi Award (age 30–35)
- IFCS Research Medal for outstanding research achievements (age > 35)
- Student/Postdoctoral Fellow Paper Competition and Travel Award (age 22–29)

Conference Venue

The conference venue will be confirmed in March 2018 and details will be provided in the next IFCS Newsletter.

Conference Topics

Contributed papers from scholars and practitioners are invited on any of the topics

below as well as on related issues: Data Analysis and Classification in the Natural Sciences, Engineering, Medicine and Biology / Banking and Finance / Bioinformatics and Biostatistics / Biomedical Data Analysis and Imaging / Business and Industry / Classification, Discriminant Analysis, and Supervised Learning / Clustering and Unsupervised Learning / Complex Event Processing / Data Analysis in Archaeology / Databionics / Exploratory Data Mining / Formal Concept Analysis / Functional Data Analysis / Geospatial Planning / Graphics and Vision / High-Dimensional Data and Dimension Reduction / Image Analysis and Computer Vision / Information Retrieval and Library Science / Impact of Technical Revolution, Globalization on Statistical Process / Knowledge Discovery / Linguistics and Musicology / Machine Learning and Pattern Recognition / Marketing and Management / Medical and Health Sciences / Neural Networks and Deep Learning / Psychology and Educational Sciences / Social Network Analysis / Sparse Modeling / Statistical Data Analysis, Statistical Models and Model Selection / Swarm Systems / Symbolic Data Analysis / Text Mining, Web Mining, and Ontology Learning / Visualization

In addition, plenary lectures and conference sessions will focus on the following topics:

- a) theoretical aspects and applications of data analysis methods and classification methodology in various scientific fields,
- b) organizing, analysing and visualizing official data, and
- c) needs and insights of statistical education. Particular emphasis will be placed on multidisciplinary approaches for social and health sciences, mathematics, informatics, humanities, and science.

Submission of Abstracts

Titles and abstracts should be submitted and uploaded via the conference website <http://ifcs.gr> by April 15, 2019. All abstracts will be subject to a peer review process. Notifications of acceptance will be sent by May 15, 2019.

Important Dates

- November 1, 2018 Start early bird registration
- April 15, 2019: Deadline for abstract submission
- April 15, 2019: Deadline for early bird registration

- May 15, 2019: Notification of acceptance for abstract submission
- May 31, 2019: Deadline for standard registration
- June 30, 2019: Deadline for late registration
- August 26, 2019: Pre-conference workshops
- August 27-29, 2019: IFCS-2019 conference

Publications Related to the Conference

We are planning to publish a post-conference proceedings. The tentative schedule is as follows:

- October 15, 2019: Deadline manuscript submission
- December 15, 2019: Notification of acceptance
- February 15, 2020: Deadline revised manuscript submission
- June 15, 2020: Publication and shipment

Conference Fees

	Early Bird until May 15, 2019	Standard	Late after May 15, 2019
IFCS Societies Member*	260,00 €	300,00 €	340,00 €
Non-Member	340,00 €	380,00 €	420,00 €
Student	150,00 €	150,00 €	150,00 €

* IASC members are entitled to IFCS societies members reduced fees.

Contact Address

Theodore Chadjipantelis, Aristotle University of Thessaloniki, School of Political Sciences, University Campus, 54625, Thessaloniki, Greece. Email: ifcs2019@polsci.auth.gr. Further Information can be found on the conference website <http://ifcs.gr>.

Submission of Abstracts

Titles and abstracts should be submitted and uploaded via the conference website <http://ifcs.gr> by 15 April 2019. We look forward to seeing you in Thessaloniki in August 2019.

Theodoros Chatzipantelis

Call for Nominations: Classification Society Distinguished Dissertation Award

Each year, the Classification Society offers a Distinguished Dissertation Award (the Award,

hereafter) for an outstanding Ph.D. dissertation on the theme of clustering, classification, or related areas of data analysis, encompassing associated theory and/or applications. The 2018 Award totals US\$500 in book vouchers from Chapman and Hall/CRC Press and the winner will be invited to make a presentation in a special session at the 2018 Classification Society Annual Meeting, which will be held at Stony Brook University from June 20-23. The Classification Society will cover travel expenses to the 2018 Annual Meeting of at most US\$1,000 for a North American-based Award winner or at most US\$1,500 for an Award winner based elsewhere.

Criteria for nomination for the Award include: the main topic of the dissertation is in classification, clustering or a closely related area; the dissertation contains innovative work in theory/methodology and/or or innovative or well-developed application(s); and the literature review is thorough. To be eligible for nomination, a Ph.D. dissertation must have been successfully completed – including successful defense – within the calendar year 2017. Nominations may be made by the dissertation author, supervisor, or related person, and must be sent by email. A nomination must include contact information for the nominator and nominee (if different), a URL where an online copy of the dissertation can be accessed by the members of the Award Committee, and an electronic (e.g., scanned) cover letter, written and signed by the nominator, stating the date of final completion of the Ph.D. dissertation and outlining why the dissertation merits the award. The nominator must also arrange for two external referee reports to be sent directly to the chair of the Award committee. If possible, the referees should be arms-length from the dissertation author and their supervisor. Cover letters should include full bibliographic details for any published papers, proceedings, book chapters, or similar scholarly material that have arisen from the dissertation. For non-English language dissertations, nominators are requested to provide an extended abstract in English and, where relevant, to highlight any papers, proceedings, book chapters, or similar scholarly material associated with the dissertation that have been published in English.

The 2018 Award Committee comprises:

- Stephen France, Mississippi State University, United States;

- Bobby Gramacy, Virginia Tech, United States; and
- Fionn Murtagh, University of Huddersfield, United Kingdom.

Nominations and external referee reports must be submitted to the chair of the Award Committee, Fionn Murtagh, at fmurtagh@acm.org, on or before 11.59pm (EST) on February 1, 2018. Results will be announced approximately two months after this submission deadline.

Fionn Murtagh

News from CLAD

JOCLAD 2018

The XXV Annual Meeting of the Associação Portuguesa de Classificação e Análise de Dados (CLAD) will be held April 05-07 2018, at Escola Naval, Base Naval de Lisboa, Alfeite, near the city of Lisbon, on the opposite bank of Tagus river. JOCLAD 2018 scientific program will include plenary and thematic sessions, contributed papers and poster sessions. Short courses will take place April 5th. Authors of the best research papers presented at JOCLAD 2018 will be invited to submit full papers for publication in CLADMAp III, the next issue of CLAD's Book Series. The JOCLAD 2018 program and further information will soon be available at the conference website, <http://www.joclad.ipt.pt/joclad2018>, as well as at the CLAD website <http://www.clad.pt>.

Cooperation with Sister Societies

Accordingly to the Protocol Agreement of associate membership between CLAD and Sociedade Portuguesa de Estatística, SPE, a plenary session on behalf of CLAD was presented on 22-10-2017, during the annual SPE meeting. Organizer was the CLAD President, José Gonçalves Dias. During JOCLAD 2018 a thematic session will be organized on behalf of the Associação Portuguesa de Demografia, APD, according to the Protocol Agreement of associate membership between CLAD and APD.

Helena Bacelar-Nicolau

News from JCS

(I) New Executive Members of JCS

The following list includes the new staff of the

Japanese Classification Society elected according to the articles of the JCS governing the election of Executive Members. The tenure for these members is from April 1, 2017 to March 31, 2019.

President

Koji Kurihara, Okayama University, 1-1-1 Tsushima-naka, Kita-ku, Okayama 700-8530 Japan, kurihara@ems.okayama-u.ac.jp

Auditors

Fumi Hayashi, Toyo Eiwa University. Michiko Watanabe, Keio University.

Executive Committee Members

Kohei Adachi, Tadashi Imaizumi, Noboru Ohsumi, Tatsuo Otsu, Akinori Okada, Yutaka Kano, Takafumi Kubota, Fumitake Sakaori, Mika Sato-Ilic, Kazuo Shigemasa, Nobuo Shimizu, Akinobu Takeuchi, Yuki Toyoda, Atsuhiko Nakayama, Yasumasa Baba, Atsuhiko Hayashi, Masahiro Mizuta, Hiroshi Yadohisa, Kazunori Yamaguchi, Yoshiro Yamamoto, Satoru Yokoyama, Ryozo Yoshino

Secretariat Members

Secretary: Yoshiro Yamamoto, Tokai University, yama@tokai-u.jp

General affairs: Takafumi Kubota, Tama University, kubota@tama.ac.jp

Makoto Tomita, Tokyo Medical and Dental University, mtomita@ism.ac.jp

Public relations: Fumitake Sakaori, Chuo University, sakaori@math.chuo-u.ac.jp

Treasurer: Makiko Oda, National Defense Medical College, oda@ndmc.ac.jp

The other members are Tadashi Imaizumi (Tama University), Masahiro Mizuta (Hokkaido University), Atsuhiko Nakayama (Tokyo Metropolitan University), Akinori Okada (Tama University), Mika Sato-Ilic (University of Tsukuba), Akinobu Takeuchi (Jissen Women's University), Yuki Toyoda (Hosei University) and Hiroshi Yadohisa (Doshisha University).

(II) The 6th Japanese-German Symposium on Classification

The 6th Japanese-German Symposium on Classification was held on August 11th and 12th, 2017 at Tama University, Shinagawa satellite Campus in Tokyo, Japan. The chairperson of organizing committee was Tadashi Imaizumi

(Tama University). The speakers and the titles of their talks were as follows:

- Ensemble methods in classification and clustering, Berthold Lausen (University of Essex)
- Applying tensor decompositions to author name disambiguation of common Japanese researcher names, Kei Kurakawa (National Institute of Informatics) and Yasumasa Baba (The Institute of Statistical Mathematics).
- Lorenz Curves, Gini index and... Bacteria, Alfred Ultsch (University of Marburg).
- Variations of Ward method for non-Euclidean spaces and a two-stage algorithm, Sadaaki Miyamoto (University of Tsukuba), Yuuto Tamura (University of Tsukuba) and Yasunori Endo (University of Tsukuba).
- Cluster-Scaled Forecasting Method for High-Dimension Low-Sample Size Data, Mika Sato-illic (University of Tsukuba).
- Screening for ordinal class structures, Ludwig Lausser (Ulm University), Lyn-Rouven Schirra (Ulm University), Florian Schmid (Ulm University), Robin Szekely (Ulm University) and Hans A Kestler (Ulm University).
- Gini index penalized canonical covariance analysis for three-mode three-way data, Jun Tsuchida (Doshisha University) and Hiroshi Yadohisa (Doshisha University).
- Components, Cluster (and Correspondence): A data driven approach to consumer behavior segmentation, Karsten Luebke (FOM Hochschule für Oekonomie & Management) and Oliver Gansser (Dortmund).
- Classification of influences for SNS text data regarding radiation, Takafumi Kubota (Tama University).
- Data Science-Is the impact of Statistics significant? Claus Weihs (TU Dortmund University).
- Meta-Analysis with Symbolic Data Approach, Masahiro Mizuta (Hokkaido University).
- Singular Least Squares and the Analysis of Simple Conjoint Experiments, Andreas Geyer-Schulz (Karlsruher Institut für Technologie).
- "New" Techniques for Site Engineering: Kano and Jobs-to-Be-Done Revisited, Daniel Baier (University of Bayreuth), Franziska Kullak* (University of Bayreuth) and Herbert Woratschek (University of Bayreuth).
- Customer Segmentation with Qualitative

Comparative Analysis, Yuki Toyoda (Hosei University).

- Omni-Channel Overview-Business Trends and Research Reviews in Marketing Science-, Hiroyuki Tsurumi (Yokohama National University).
- Guiding supervised classification algorithms via semantic knowledge, Hans Kestler (Ulm University).
- Study on Globalization of Japanese companies Based on Text Mining, Atsuhiko Nakayama (Tokyo Metropolitan University) and Komoda Fumio (Saitama Gakuen University).
- Diagnostic Classification of Student's Knowledge States based on Their Item Response Data, Yuan Sun (National Institute of Informatics), Shunya Inoue (Tokyo Kasei University) and Yi Sun (University of China Academy of Science).

(III) The Japanese Classification Society Symposium on "Analysis of test data"

The symposium was held on September 4th, 2017 at Nanzan University, Nagoya campus in Nagoya City under the 2017 Japanese Joint Statistical Meeting. The organizer, discussant and speakers were as follows:

- Organizer & Chairperson: Kumiko Shina (National Center for University Entrance Examination)
- Discussant: Takashi Murakami (Chukyo University)
- Speaker(s): Kumiko Shina (National Center for University Entrance Examination); Yutaro Sakamoto (Recruit Management Solutions Co, Ltd, Tohoku University) and Tadashi Shibayama (Tohoku University); Fumiko Yasuno (National Institute for Educational Policy Research) and Hisao Miyano (National Center for University Entrance Examination); Takahiro Terao (Nagoya University), Hidetoki Ishii (Nagoya University) and Hiroyuki Noguchi (Nagoya University); Daiki Hojo (Senshu University) and Kensuke Okada (Senshu University).

The official Web site of the 2015 Japanese Joint Statistical Meeting is <http://www.jfssa.jp/taikai/2017> (in Japanese).

(IV) Publication of the Journal

Volume 6 Number 1 of the Journal of the Japanese Classification Society, *Data Bunseki no Riron to Oyo* [Bulletin of Data Analysis], was

successfully published (all papers are written in the Japanese language).

(V) Information about the 36th Annual Meeting of the Japanese Classification Society

The 36th Annual Meeting will be held on December 4th and 5th, 2017 at Sapporo Convention Center in Hokkaido. The chairperson of the organizing committee is Masahiro Mizuta (Hokkaido University). For additional information, please visit our website at <http://www.bunrui.jp/>.

Kensuke Tanioka

News from The Classification Society

Report on CS 2017

The 2017 Classification Society Meeting was held at the University of California, Santa Cruz, Silicon Valley campus on June 21-24. Speakers included both academic and industry participants. The President's Invited Address, given by Rob Tibshirani of Stanford University, was on *Cancer detection via the lasso and customized training*. The plenary keynote talk, given by Michael Jordan of the University of California, Berkeley, was *On Gradient-Based Optimization: Accelerated, Distributed, Asynchronous and Stochastic*. We also had a number of talks on mixture models, tree methods, machine learning, spatial/temporal applications, and a variety of other topics. Speakers from GE, Stitch Fix, and the Climate Corporation provided insight into how classification is used in industry.

CS 2018

The 2018 Annual Meeting of the Classification Society will be at Stony Brook University, Long Island, New York from June 20-23. The President's Invited Address will be given by:

- Charles Bouveyron, Université Nice Côte d'Azur, France.

The President's Address will be given by:

- Paul McNicholas, McMaster University, Ontario, Canada.

The other keynote lectures will be given by:

- Tanzy Love, University of Rochester, New York, US.
- Volodymyr Melnykov, The University of Alabama, Tuscaloosa, US.
- Katrijn Van Deun, Tilburg University, The Netherlands.

As usual, there will be a special invited session for the Distinguished Dissertation Award. In addition, there will also be two invited sessions:

- Applications of Classification
 - Justin Gross, University of Massachusetts Amherst, US.
 - Yang Tang, McMaster University, Ontario, Canada.
- Recent Advances in Classification
 - Sanjeena Dang, Binghamton University, New York, US.
 - Berthold Lausen, University of Essex, UK.

The local arrangements chair is Jim Rohlf and the members of program committee are Jeff Andrews, Abby Flynt, Brian Franczak, and Paul McNicholas (chair). Contributed abstracts for talks and posters are welcome and can be submitted at www.theclassificationssociety.org from January 1, 2018. The submission deadline for contributed abstracts is April 15. The Early Bird Registration deadline is May 15. Details about accommodation will be posted at www.theclassificationssociety.org in the coming weeks. Hope to see you in New York for CS 2018!

Herbert Lee and Paul McNicholas

News from SKAD

The 26th Scientific Conference of Classification and Data Analysis Section (SKAD) of Polish Statistical Society (and the 31st Taxonomic Conference) on "Classification and Data Analysis – Theory and Applications" was held between 23rd-25th October 2017 at Cracow University of Economics. Besides SKAD, the conference was also organized by the Department of Statistics of Cracow University of Economics. The chairperson of the organizing committee was professor Józef Pocięcha. The scientific committee of the conference consisted of: Józef Pocięcha, Grażyna Dehnel, Eugeniusz Gatnar, Krzysztof Jajuga, Krzysztof Najman, Barbara Pawełek, Andrzej Sokołowski, Marek Walesiak.

72 participants attended the conference. Its program included: 2 plenary sessions, 10 parallel sessions and a poster session. During the conference, 18 posters and 43 papers were presented. Traditionally, the conference topics covered the following fields: theory (taxonomy, discriminant analysis, linear ordering,

multivariate statistical analysis, continuous variables analysis, discrete variables analysis, symbolic data analysis, data visualization), and applications (spatial data analysis; data analysis in finance, marketing, medicine, psychology, archaeology, etc.; computer applications of statistical methods).

The next Conference of Section of Classification and Data Analysis of Polish Statistical Society “Classification and Data Analysis: Theory and Applications” will be held in September 2018.

Mateusz Baryła

News from GfKI

ECDA 2018, the Fifth European Conference on Classification and Data Analysis

Paderborn, Germany, July 4-6,

<http://www.ecda2018.de>. Invited speakers:

- Nico Beerkenwinkel, ETH Zürich, “Analyzing molecular tumor profiles for precision oncology”.
- James Berger, Duke University, USA, “Gaussian Process Emulation of Computer Models with Massive Output”.
- Andreas Christmann, University of Bayreuth, “Kernel based methods in machine learning”.
- Jurgen Doornik, University of Oxford, “Model building in a changing world”.
- Iryna Gurevych, TU Darmstadt, “Latest News in Computational Argumentation: Surfing on the Deep Learning Wave, Scuba Diving in the Abyss of Fundamental Questions”.
- Barbara Hammer, Bielefeld University, “Transfer Learning and Learning with Concept Drift”. Johannes Hartig, DIPF Frankfurt, “Analysis of data from educational achievement tests with generalized linear mixed models”.
- Luc de Raedt, KU Leuven, Belgium, Title TBA.
- Roberto Rocci, University of Rome Tor Vergata, Italy, “Finite mixtures for simultaneous clustering and reduction”.
- Elena Simperl, University of Southampton, “Data analysis with humans in the loop”.
- Yuan Sun, National Institute for Informatics, Japan, “Learning oriented diagnostic assessment based on students' response data”.

40 years of “GfKI – Data Science Society”

On February 24, 2017, the 40th Anniversary of GfKI was celebrated at Karlsruhe Palace. The afternoon was opened by welcome addresses of Geyer-Schulz (Karlsruhe Institute of Technology, KIT) (local organizer), Frank Schultmann (dean of the Faculty of Economics and Business Administration), Berthold Lausen (University of Essex, chairman of the GfKI) as well as of Andrzej Sokolowski (Cracow University of Economics, SKAD, Section on Classification and Data Analysis of the Polish Statistical Association), awarding a SKAD honorary medal to Berthold Lausen.

Joachim Buhmann (ETH Zurich) presented the first scientific talk “Resilient algorithmics: How much information is extracted from an algorithm from my data?”, also discussing current developments in the area of Big Data. Afterwards, Manfred Wilhelm (KIT, Institute for Technical and Polymer Chemistry) humorously explained how alcohol invades the brain and how to apply NMR spectroscopy to analyze wine contents in his talk “In Vino Veritas?! Wine, health, and NMR spectroscopy”.

After a reception offering champagne and snacks, the second part of the celebration was opened by Tim Friede (University of Göttingen) with a lecture on “Combining evidence in clinical research: applications in adaptive designs and meta-analyses”. Then, Hans-Hermann Bock (RWTH Aachen University) reviewed the history of the GfKI from its founding on February 12, 1977, in Frankfurt am Main to its current state in his talk “40 years of GfKI – from Taxonomy to Big Data” (see <https://issuu.com/gfki/docs/2017-karlsruhe-40jahregfki-vortragb>).

At the end of the official part of the celebration, the BRCA Data Analysis Award (<http://www.isw.rwth-aachen.de/BRCA-Award/home.pdf>) was conferred to the bioinformatics scientist Corinna Ernst (University Hospital of Cologne) by Hans Kestler (University of Ulm) for the paper “A generalized additive model framework for CNV detection on multi-gene panels.” The day was concluded by an unofficial meeting in the comfortable atmosphere of a nearby Spanish restaurant.

Victoria-Anne Schweigert and Claus Weihs

Cluster Analysis Benchmarking: Two IFCS challenges

The IFCS Task Force on Benchmarking has organized two challenges in order to stimulate better practice in benchmarking (performance comparison of methods) for cluster analysis and to promote the IFCS Cluster Benchmark Data Repository (<https://ifcs.boku.ac.at/repository/>).

The first challenge was to submit datasets to the repository that come with good metadata (including background information about the meaning of the data, the research questions, the aim of the clustering, and characteristics that useful clusters should fulfill). The second challenge was to analyze the winning dataset from the first challenge. A key criterion in this second challenge was the connection of the chosen clustering methods and its results to the available meta-data, which the Task Force sees as essential for a good clustering. Selected contributions to the second challenge were presented in two dedicated invited sessions at the IFCS-2017 conference in Tokyo.

The first challenge was won by W. Vach and colleagues, who submitted a dataset regarding baseline assessment and outcome measures from a longitudinal study of adult low back pain patients who consulted chiropractors. The research question was rooted in a need for a better understanding of the mechanisms underlying the very heterogeneous condition of low back pain. This was translated into a search of a clinically useful grouping of patients (based on their baseline characteristics only) that could help to predict the development of low back pain through therapy.

This dataset was to be analyzed for the second challenge. Six groups of contributors (H. van der Hoef, F. Liu & S. Gupta & C. Tortora, M. Greenacre, L. Phan & H. Liu & C. Tortora, V. Makarenkov & A. Gondeau, J. Fitch & N. Khan & C. Tortora) were invited to present their analyses and results in two invited sessions at IFCS-2017 (along with an introduction of the Benchmark Task Force, the repository, and the dataset by I. Van Mechelen and a statistical evaluation of the submissions by C. Hennig). The sessions were very well attended. The contribution by F. Liu & S. Gupta & C. Tortora was finally selected as the winner of the second

challenge by the IFCS Benchmark Task Force. A publication on the winning dataset from the first challenge and on the contributions to the second challenge is in preparation. Overall, the challenges were a very good experience and can hopefully contribute to stimulate good practices in cluster analysis and cluster analysis benchmarking. On behalf of the IFCS Task Force on Benchmarking,

Christian Hennig and Iven Van Mechelen

Fourth German-Polish Seminar on Data Analysis and Applications

The Fourth German-Polish Seminar on Data Analysis and Applications was held at Wroclaw University of Economics (Poland) on September 26th, 2017. The previous seminars, being the joint scientific meetings of GfKI and SKAD, took place in Aachen (2009), Kraków (2011) and Dresden (2013). The scientific chairmen of seminar were Józef Pociecha (SKAD) and Berthold Lausen (GfKI). The organizational part was performed by people from Wroclaw University of Economics, chaired by Krzysztof Jajuga and Anita Makowska.

35 persons participated in the seminar, including 22 from Poland and 13 from Germany. The following papers were presented during seminar: Andreas Geyer-Schulz (KIT Karlsruhe) – Conjoint Analysis by Generalized Least Squares: Inference, Diagnostics, and Clustering; Andrzej Dudek (Wroclaw University of Economics) – On Natural Number of clusters. Bootstrapping versus Cluster Quality Indices Approach; Hans Joachim Mucha (WIAS Berlin) – Big Data Clustering: Comparison of the Performance of a New Fast Pre-Clustering and Subsampling; Jan W. Owsinski, Karol Opara, Jarosław Stańczak (System Research Institute Warsaw) – Reverse Clustering: the Problem, the Meaning and Some Simple Examples; Barbara Pawelek, Józef Pociecha (Cracow University of Economics) – Problem of Time Uniformity of Financial Data in Corporate Bankruptcy; Daniel Baier, Alexandra Rese (University of Bayreuth) – Online-Shop Site Engineering Using Eye Tracking, TAM, and A/B-Tests: An Empirical Application; Katarzyna Kuziak, Krzysztof Piontek (Wroclaw University of Economics) – Assessment of the Systemic Risk in Banking Industry; Vanessa Bormann, Matthias Gehrke, Karsten Lübke (FOM

Hochschule in Dortmund) – Evaluation of selected models for Value-at-Risk calculation; Adalbert F.X. Wilhelm (Jacobs University Bremen) – Hybrid Image Classification using Captions and Image Features; Michał Trzęsiok (University of Economics in Katowice) – Neural Networks’ Feature Extraction as a Method for Improving Stability of Classification Trees; Eyke Huellermeier (University of Paderborn) – Statistical Inference for Incomplete Ranking Data: The Case of Rank-Dependent Coarsening; Marcin Pełka (Wrocław University of Economics) – Analysis of Innovation in the EU via Ensemble Symbolic Density Clustering; Andrzej Sokołowski, Kamil Fijorek (Cracow University of Economics) – Statistical Analysis of Televoting at the Eurovision Song Contest; Claus Weihs, Tanja Hernandez Rodriguez (TU Dortmund) – Professor’s Workload; Paweł Lula, Monika Hamerska, Urszula Cieraszevska (Cracow University of Economics) – Analysis of Research Trends in Economic Sciences Represented in Polish Scientific Papers.

It has been decided that the next seminar will be held at University of Bayreuth in 2019.

Krzysztof Jajuga

Fourth European Conference on Data Analysis

The Fourth European Conference on Data Analysis was held at Wrocław University of Economics (Poland) on September 27-29, 2017. The previous conferences took place in Luxembourg (2013), Bremen (2014) and Colchester (2015). This year conference was scientific event partnered by Section on Classification and Data Analysis of Polish Statistical Association (SKAD), European Association for Data Science (EuADS), Gesellschaft für Klassifikation (GfKl) Data Science Society, Classification and Data Analysis Group of the Italian Statistical Society (CLADAG) and British Classification Society (BCS). The chairman of Scientific Committee was Józef Pociecha (SKAD). The organizational part was performed by people from Wrocław University of Economics, chaired by Krzysztof Jajuga and Anita Makowska.

In the conference 140 persons participated, from the following countries: Poland, Germany,

Norway, Turkey, United Kingdom, Italy, Belgium, Portugal, Ireland, Canada, Austria, Spain, Czech Republic, Slovakia, and Korea. During the conference 107 papers were presented, including the following plenary and semi-plenary talks:

- Berthold Lausen – Ensemble methods in classification and clustering
- Mirosław Szreder – Will Big Data affect opinion polls?
- Andrzej Dudek – Cluster analysis as a field of big data analysis
- Cinza Viroli – Deep Gaussian mixture models
- Monika Papież, Sławomir Śmiech – Are there clusters in financial assets volatility spillover?
- Dominik Rozkrut – Challenges and opportunities of Big Data for official statistics in Poland
- Christian Hennig – Using model-based clustering data that doesn’t follow the model, and the number of clusters

The other papers were presented during contributed sessions, including: Clustering (3 sessions), Data Analysis in Economics (5 sessions), Data Analysis in Finance (4 sessions), Data Analysis in Marketing (3 sessions), Data Analysis in Regional Studies (3 sessions), Data Analysis and Statistics (5 sessions), Machine Learning (3 sessions), Data Analysis in Biostatistics, Data Analysis in Interdisciplinary Domain. In addition, four special sessions were organized: Workshop on Library and Information Science, Socio-Economic Analysis, Challenges in the Measurement of Economic Risk, Statistical Challenges in the Anti-Fraud Analysis of Customs Data.

The next Fifth European Conference on Data Analysis will be held at University of Paderborn (Germany) on July 4-6, 2018.

Krzysztof Jajuga

Upcoming Conferences and Meetings

October 2017

III International Workshop on Proximity Data, Multivariate Analysis and Classification, AMyC 2017. Annual meeting of the Multivariate Statistics and Classification Group of the Spanish Society of Statistics and Operations Research,

University of Valladolid, Spain, October 26-27,
2017, <http://www.eio.uva.es/wamyc/>

December 2017

36th Annual Meeting of the Japanese
Classification Society, December 4-5,
<http://www.jfssa.jp/taikai/2017>

April 2018

JOCLAD 2018, the XXV Annual Meeting of the
Associação Portuguesa de Classificação e
Análise de Dados (CLAD), April 5-7,
<http://www.joclad.ipt.pt/joclad2018>

June 2018

CS 2018, the annual meeting of The
Classification Society, New York, June 20-23,
www.theclassificationssociety.org

July 2018

ECDA 2018, the Fifth European Conference on
Classification and Data Analysis, Paderborn,
Germany, July 4-6, <http://www.ecda2018.de>

**Looking Ahead to IFCS Newsletter
Number 57**

Contributions for the forthcoming issue of the
IFCS newsletter will be due in March, 2018.
The new IFCS Publication Officer will send an
email with details of how to submit
contributions.

Thanks!

Paul McNicholas
IFCS Publication Officer