CARME-N – Correspondence Analysis and Related Methods Network CARME 2007

Jörg Blasius, Michael Greenacre, Patrick Groenen and Michel van de Velden

Electronic version
URL: http://bms.revues.org/2923
ISSN: 2070-2779

Published by
Association internationale de méthodologie sociologique

Printed version
Date of publication: 1 juillet 2008
Number of pages: 73-81
ISSN: 0759-1063

Electronic reference

This text was automatically generated on 30 septembre 2016.

© BMS
In May 1991, on the initiative of Prof. Walter Kristof (University of Hamburg), the first international conference ever held on the topic of correspondence analysis was held in Cologne, Germany, hosted by the Zentralarchiv für Empirische Sozialforschung (Central Archive for Empirical Social Research) of the University of Cologne. This conference, organized by Jörg Blasius (Cologne) and Michael Greenacre (at this time University of South Africa, Pretoria, South Africa), called Correspondence Analysis in the Social Sciences, drew an audience of about 50 people from seven countries.

Four years later in May 1995, Michael Greenacre (now University Pompeu Fabra, Barcelona) and Jörg Blasius decided to repeat the conference, but on a wider theme: Visualization of Categorical Data (see: www.math.yorku.ca/SCS/Cologne/). The audience grew, nearly 100 participants attended, and so did their enthusiasm. From these two conferences two edited books appeared, with the same names, and have come to be recognized as major reference works in this area of research, both published by Academic Press (in 1994 and 1998).

Again, four years later, in May 1999, Jörg Blasius and Michael Greenacre organized their third conference in Cologne, this time distributing CD-ROMS of data from the International Social Survey Programme (ISSP) to all participants, with the requirement that all participants had to analyse data from this database, using any method of their choice. This conference, Large Scale Data Analysis (see, www.uni-bonn.de/~iposoedv/soziologie/large_scale_data_analysis.html), affectionately dubbed LSD Analysis - a hallucinating experience drew a yet wider audience of statisticians and sociologists, with parallel sessions entitled Religion and Social Inequality, for example, not a common event at a conference fundamentally dedicated to statistical methodology! The number of
participants increased again, now to 120, with participants from 20 countries from all continents.

Four years later in July 2003, Michael Greenacre and Jörg Blasius (now University of Bonn) organized their fourth in the series of “Cologne conferences”, this time in Barcelona. They decided to return to their original topic of correspondence analysis, but keeping the door open to “related methods” to foster the continuing debate on visualization of complex multivariate data; hence, the conference was called Correspondence Analysis and Related Methods, or simply CARME (see, www.econ.upf.edu/carme/). This time 180 participants came to Barcelona for the event, again from all continents, who presented 82 papers and 6 posters. By the way, “Carme” is a Catalan girl’s name, the Catalan equivalent of the Spanish “Carmen”. Again, they decided to edit a book, focussing on Multiple Correspondence Analysis and Related Methods, this time published by Chapman & Hall/CRC. Having finalized this manuscript, 15 years after the first conference and a huge amount of travelling between Pretoria/Barcelona and Cologne/Bonn, there was a natural need for a homepage that is dedicated to CARME and its network “CARME-N” (see, www.carme-n.org).

After having conferences in Cologne and Bonn, for the fifth conference in June 2007 Patrick Groenen from Rotterdam University offered to organize the next meeting. Together with Michel van de Velden (University of Rotterdam) he took the responsibility for CARME 2007 (see below and www.carme-n.org/carme2007/index.html). This time we had more than 60 papers, 7 posters and more than 80 participants, again from all continents. Instead of having an edited book, we decided that it is better to publish the papers in a special issue of a good quality and peer-reviewed journal – we are happy that Computational Statistics and Data Analysis agreed to do it. After the reviewing process we kept approximately 15 papers containing strong computational statistical and/or substantive data-analytic elements as well as 5 book reviews.

CARME is very much alive and has several future plans. The next small meeting will happen two years after CARME 2007 as a part of the joint meeting of the German Gesellschaft für Klassifikation (GfKl) and the IFCS at Dresden, Germany, from March 13-18, 2009. Two years later, a regular conference will be held CARME 2011. This edition will be organized in one of the cities in which correspondence analysis started, Rennes in France; organizer of this up-coming meeting will be our friend and colleague Jérôme Pagès (Agrocampus, Rennes, France).

**CARME 2007**

The 2008 conference on Correspondence Analysis and Related Methods (CARME 2007) was held at Erasmus University Rotterdam, Rotterdam, The Netherlands from June 25-27, 2007.

The objective of this conference was to spotlight the very latest research in correspondence analysis and discuss future developments. Our aim was to bring together theoretical and applied researchers in all the areas where correspondence analysis is currently used, notably sociology, psychology, economy, education, ecology, archeology, geology, linguistics, philosophy, genetics, biomedical research, health economics, marketing, and management. Interdisciplinary contributions are particularly welcome.
Historically, CARME has an informal atmosphere that aims at promoting the exchange of ideas and scientific collaboration. As you can see in the program, we have several distinguished invited and contributed speakers. The two keynote presentations will be held by Fionn Murtagh and Wayne DeSarbo.

Previous CARME meetings have resulted in books edited by Michael Greenacre and Jörg Blasius. This time, we have decided that it is better to publish the papers in a special issue of a good quality journal. Therefore, papers containing strong computational statistical or substantive data-analytic elements will be considered for publication in a special peer-reviewed, or regular issue of the journal *Computational Statistics and Data Analysis*.

The program committee: Patrick Groenen, Jörg Blasius, Michael Greenacre, and Michel van de Velden.

**Sponsors** - We would like to thank the financial support given by:

- Erasmus Research Institute of Management (ERIM),
- Vereniging Trustfonds Erasmus Universiteit Rotterdam.

**Academic support for this meeting is given by:**

- The IFCS, the International Federation of Classification Societies,
- RC33, the Research Committee on Logic and Methodology of ISA (International Sociological Association),


**Topics** - Themes of the conference include all forms of correspondence analysis and related fields, including visualisations of categorical data:

- Simple correspondence analysis
- Multiple correspondence analysis
- Joint correspondence analysis
- Multiway correspondence analysis
- Canonical correspondence analysis
- Nonsymmetrical correspondence analysis
- Dual scaling
- Optimal scaling
- Homogeneity analysis
- Multidimensional scaling of categorical data
- Biplots of categorical data
- Visualisation of compositional data
- Correspondence analysis in the social sciences
- Correspondence analysis in ecology and the environmental sciences
- Correspondence analysis in the health sciences
- Correspondence analysis in marketing research and management

**Previous conferences** - This conference is the fifth in a series of conferences organized every four years on correspondence analysis, multidimensional graphical techniques, and the analysis of large sets of categorical data:

- May 1991: Correspondence Analysis in the Social Sciences, Cologne (Germany)
- May 1995: Visualisation of Categorical Data, Cologne (Germany)
- May 1999: Large Scale Data Analysis, Cologne (Germany)
- July 2003: Correspondence Analysis and Related Methods, Barcelona (Spain)
Organizing Committees

The Local Organizing Committee for this conference comprises: Patrick J. F. Groenen, Michel van de Velden, Martijn Kagie, Joost van Rosmalen, Elli Hoek van Dijke, and Georgi Nalbantov.

Invited Speakers:

• John Gower (Open University, Milton Keynes, UK)
• Fionn Murtagh (University of London, UK)
• Michael Friendly (York University, Toronto, Canada)
• Wayne DeSarbo (Pennsylvania State University, USA)
• Willem Heiser (Leiden University, The Netherlands)
• Antoine de Falguerolles (Université Paul Sabatier, Toulouse, France)
• Ludovic Lebart (Ecole Nationale Supérieure des Télécommunications, Paris, France)
• Gilbert Saporta (Conservatoire National des Arts et Métiers, Paris, France)
• Jérôme Pagès (Agrocampus, Rennes, France)
• Henk Kiers (Groningen University, The Netherlands)

Academic Program, Monday June 25, 2007

09:00-10:00 Registration Opening: Chair, Patrick Groenen
10:00-10:15 Prof. dr. Philip Hans Franses, dean of the Erasmus School of Economics, Erasmus University Rotterdam
Keynote Speaker: Fionn Murtagh
Room: Athene, M1-19, Chair: Patrick Groenen
10:15-11:00 Fionn Murtagh: Correspondence analysis, a tale of three metrics
Contributed Session 1: Biplot
Room: Athene, M1-19, Chair: John Gower
11:30-11:55 Kohei Adachi: A least-squares algorithm for the unit-length vector MDS model and its nonmetric variant
12:20-12:45 Michel van de Velden, Patrick Groenen, and John Gower: Area biplots
Contributed Session 2: Analysis of contingency tables with ordinal variables
Room: Rochester, M2-10, Chair: Luigi d’Ambra
11:30-11:55 Ida Camminatiello and Rosaria Lombardo: A generalization of CATANOVA method for ordinal-scale variables
11:55-12:20 Rosaria Lombardo and Eric Beh: Simple and multiple correspondence analysis using orthogonal polynomials
12:20-12:45 Eric Beh, Luigi D’Ambra, and Biagio Simonetti: Ordinal correspondence analysis based on cumulative chi-squared test

Invited Speakers Session:
Room: Athene, M1-19, Chair: Jörg Blasius
14:15-14:50 Ludovic Lebart: Correspondence analysis and SOM
14:50-15:25 John Gower, Paul Eilers and Jörg Blasius: Enhanced biplots

Contributed Session 3: Statistical modelling
Room: Athene, M1-19, Chair: Paul Eilers
15:55-16:20 Jeroen Vermunt: A comparison of dimensionality assessment and graphical display methods for sets of categorical variables
CARME-N – Correspondence Analysis and Related Methods Network CARME 2007

16:20-16:45 Joost van Rosmalen, Hester van Herk, and Patrick Groenen: Modeling response styles in cross-cultural research: A latent-class bilinear multinomial logit model
16:45-17:10 Paul Lewi, Luc Wouters, Luc Bijnen, Rudi Verbeeck, and Hinrich Göhlmann: Spectral map analysis/weighted log-ratio analysis of DNA microarray data
17:10-17:35 Cajo ter Braak and Yiannis Kourmpetis: Approximating a square matrix by a latent class model

Contributed Session 4: Factor analytical models
Room: Rochester, M2-10, Chair: Jérôme Pagès
16:20-16:45 Salwa Ben Ammou and Zied Kacem: A combined approach using wavelets and PCA methods
16:45-17:10 Marielle Linting: Permutation tests in linear and nonlinear PCA
17:10-17:35 Christiaan Heij, Patrick Groenen, and Dick van Dijk: Principal components and covariates - Time series forecasting and biplot representations

Academic Program, Tuesday June 26, 2007

Invited Speaker Session:
Room: Athene, M1-19, Chair: Wayne DeSarbo
09:00-09:35 Henk Kiers and Patrick Groenen: Visualizing dependence of bootstrap confidence intervals for methods yielding spatial configurations
09:35-10:10 Antoine de Falguerolles: A tour of Paris guided by statistical albums

Contributed Session 5: Multidimensional scaling
Room: Athene, M1-19, Chair: Willem Heiser
10:40-11:05 Nees Jan van Eck and Ludo Waltman: Applying ideas from homogeneity analysis to visualize similarity data
11:05-11:30 Mark de Rooij: Slide-vector models for multiple groups in continuous time
11:30-11:55 Martijn Kagie, Michiel van Wezel, and Patrick Groenen: A graphical shopping interface based on multidimensional scaling
11:55-12:20 Damian Läge and Stefan Ryf: Joint spaces for preferential data - Combining multidimensional scaling with robust Procrustean transformations
12:20-12:45 Helena Carvalho and Eduardo Viegas Ferreira: Rates of crime and social, economic, and institutional indicators (exploring by optimal scaling)

Contributed Session 6: Social science applications
Room: Rochester, M2-10, Chair: Sugnet Gardner-Lubbe
10:40-11:05 Yasemin El-Menouar and Martin Fritz: Value differences within Turkey - An application of correspondence analysis
11:05-11:30 Rahim Hajji: Turkish youth in the focus of German social science
11:30-11:55 Henk Roose: Concert hall or living room? Exploring the differences in the social structuring of private and public music consumption

Contributed Session 7: CA methodology I
Room: Athene, M1-19, Chair: Michel Van de Velden
14:00-14:25 Zerrin Aşan and Sevil Sentürk: An application of fuzzy sets and correspondence analysis for transforming continuous data into categorical
14:25-14:50 Oldemar Rodriguez: Correspondence analysis for symbolic multi-valued variables
14:50-15:15 Urbano Lorenzo-Seva, Michel van de Velden, and Henk Kiers: Oblique rotation in correspondence analysis - When the visual inspection of the spatial map of categories does not help
15:15-15:40 Jacques Allard, Vartan Choulakian and Biagio Simonetti: Multiple taxi cab correspondence analysis of dichotomous items

Contributed Session 8: Applications of dimension reduction methods
Room: Rochester, M2-10, Chair: Antoine de Falguerolles
14:00-14:25 Andreas Mühlichen, Andreas Barth, and Hartmut Pollmann: Assessing participation restrictions in patients with diabetes mellitus using CatPCA
14:25-14:50 Tor Korneliussen: Mapping Nordic management scholars use of research methodologies - An application of biplot
14:50-15:15 Jules de Tibeiro, Lionel Dionne, and Linjun Zhang: Multiple correspondence analysis used complementary to agglomerative hierarchical clustering in a survey on leader-member exchange
15:15-15:40 Francisco Casanova del Angel: Factorial analysis model, case - Corrosion of structural shapes exposed to the atmosphere

Poster Session

15:40-16:15
Gülfidan Baris and Fikret Er: Applications of correspondence analysis in marketing research
Fikret Er: A categorical data analysis of Turkish Super Football League for 2005-2006
Halil Eryılmaz and Fikret Er: An exploratory spatial data analysis of earthquake data
15:40-16:15
Giovanni Flebus: An iterative procedure to construct measurement scales for social sciences using CA-optimal scaling and factor analysis
Sevil Sentürk and Zerrin Asan: Categorization of attitude and demographic variables using fuzzy sets and correspondence analysis
Harun Sönmez: Statistical investigation of alcohol consumption of university students by log-linear models
Levent Terlemez: A fuzzy clustering for members of European Union with candidate countries

Invited Speakers Session
Room: Athene, M1-19, Chair: Henk Kiers
16:30-17:05 Willem Heiser and Matthijs Warrens: Horseshoe effects in multiple correspondence analysis – Distance transformations that let them disappear
17:05-17:30 Michael Friendly: HE plots and reduced-rank displays for multivariate linear models

Academic Program, Wednesday June 27, 2007

Invited Speakers Session:
Room: Athene, M1-19, Chair: Michael Friendly
Contributed Session 9: Classification and modelling
Room: Athene, M1-19, Chair: Mark De Rooij
10:40-11:05 Ulas Akkıcıük and J. Douglas Carroll: Nonlinear mapping using the modified PARAMAP approach
11:05-11:30 Antonio Ciampi, A. Gonzalez-Marcos, Manuel Castejon-Limas and Yves Lechevallier: Comparison of two methods for simultaneous clustering of rows and columns of a data matrix - Application to web data
11:30-11:55 Georgi Nalbantov, Patrick Groenen, and Jan Cor Bioch: Nearest convex hull classification in the multi-category case
11:55-12:20 Kar Yin Lam and Alex Koning: Confidence intervals for Crombach's alpha in correspondence analysis
12:20-12:45 Michael Greenacre: Power transformations in correspondence analysis

Contributed Session 10: Geometric data analysis I
Room: Rochester, M2-10, Chair: Brigitte Le Roux
10:40-11:05 Frederic Lebaron: About Bourdieu's geometric modelling of data
11:05-11:30 Mikael Börjesson and Donald Broady: Swedish students in Paris - Social origin, educational careers and transnational investments
11:30-11:55 Johs. Hjellbrekke and Olav Korsnes: Social capital in the Norwegian field of power
11:55-12:20 Alan Warde, Mike Savage, Brigitte Le Roux, and Henry Rouanet: Consumption and cultures of class in Britain, 2003

Contributed Session 11: CA methodology II
Room: Athene, M1-19, Chair: Ludovic Lebart
14:00-14:25 Giovanni Flebus: An index to ascertain questionnaire response consistency based on the Guttman effect
14:25-14:50 Joze Rovan, Vilma Urbancic-Rovan, and M. Slak: A new analytical insight into the screening procedures data
14:50-15:15 Simona Balbi and Michelangelo Misuresa: Choosing a proper metric for textual analysis
15:15-15:40 Peter Graeff and Jörg Blasius: Analyzing macro-sociological data by means of correspondence analysis and related methods

Contributed Session 12: Geometric data analysis II
Room: Rochester, M2-10, Chair: Henry Rouanet
14:00-14:25 Lennart Rosenlund: Structural homologies in the study of lifestyles and social differentiation - An exercise in geometric data analysis
14:25-14:50 Ida Lidégran: Educational trajectories in a region dominated by the academia
14:50-15:15 Karin Darin: Self-employment among social groups in the cultural industry in Sweden

Keynote Speaker: Wayne DeSarbo
Room: Athene, M1-19, Chair: Michael Greenacre
ABSTRACTS

In May 1991, a first correspondence analyse conference was organized in Cologne. Since then, three other such conferences have been organized and the Correspondence Analysis and Related Methods Network (CARM-E-N) has been established. The fifth conference took place in June 2007 in Rotterdam.


INDEX

Mots-clés: Analyse des correspondances, CARM-E-N, Conférences
Keywords: Correspondence Analysis

AUTHORS

JÖRG BLASIUS
Bonn, jblasius@uni-bonn.de

MICHAEL GREENACRE
Barcelona, michael.greenacre@gmail.com

PATRICK GROENEN
Rotterdam, groenen@few.eur.nl

MICHEL VAN DE VELDEN
Rotterdam, vandevelden@few.eur.nl