

# Michael Greenacre

## Biographical

- Born 8 February 1951
- Nationality: South African
- Formerly full professor in the Department of Statistics at University of South Africa, Pretoria
- Presently permanent resident in Spain, full professor in Department of Economics and Business at Pompeu Fabra University in Barcelona.
- *Work address:*  
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Universitat Pompeu Fabra  
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- *Email:* michael.greenacre@upf.edu and  
michael.greenacre@gmail.com  
*Web (university):* <http://www.econ.upf.es/~michael>  
*Web (BBVA Foundation publications):* <http://www.multivariatestatistics.org>  
*Web (musical):* <http://www.globalsong.net>, [www.youtube.com/StatisticalSongs](http://www.youtube.com/StatisticalSongs)
- *Languages:*  
Read, speak and write fluently: English, French, Afrikaans, Catalan (also have taught in all these languages).  
Reading knowledge of Spanish, Italian.

## Education

- 1970: B.Sc. (University of Cape Town) Majors in Mathematics and Statistics
- 1972: M.Sc. (University of South Africa) Statistics/Computer Science
- 1978: Doctorate (Université Pierre et Marie Curie, Paris VI, France) Thesis : *La Représentation Graphique d'un Tableau de Données*. Supervisor : Prof. Jean-Paul Benzécri

## Work experience

- 1971–1973: Research assistant, Department of Statistics, University of South Africa, Pretoria
- 1978–1981: Senior lecturer, Department of Statistics, University of South Africa, Pretoria

- 1982–1994: Full professor, Department of Statistics, University of South Africa, Pretoria
- 1994–1999: Visiting professor, Department of Economics and Business, Universitat Pompeu Fabra, Barcelona
- 1999–present: Full professor, Department of Economics and Business, Universitat Pompeu Fabra, Barcelona
- Sabbatical or extended research periods in:
  - Statistics Department, Rothamsted Experimental Station, U.K. (January–June 1982)
  - Department of Biostatistics, University of Rochester, USA (July–September 1982)
  - Statistics group, Bell Laboratories, Murray Hill, New Jersey (June–October 1987)
  - Centre for Remote Sensing, École des Mines, Sophia-Antipolis, France (July 1990 – July 1991)
  - Akvaplan-niva, Tromsø, Norway (April–May 1993)
  - BBVA Foundation, Madrid (November–December 2007; March–April 2008)
  - Akvaplan-niva & Norwegian Polar Institute (January–February 2008)
  - Department of Statistics, Stanford University (October–December 2008)
  - Department of Statistics, Middle East Technical University, Ankara, Turkey (October 2011 – January 2012)
- 2011–: Part-time collaboration as senior scientist at Akvaplan-niva, Tromsø, as well as annual teacher at Faculty of Biosciences, Fisheries and Economics, University of Tromsø, Norway

### Research Papers in Refereed Journals (*complete list*)

Citation counts are given, where possible, for selected papers as of 13/10/2010 [GS: Google Scholar; WS: Web of Science]

- 1973: **Greenacre, M.**, Symmetrized multivariate distributions, *South African Statistical Journal* 7, 95-101. [GS 13; WS 3 ]
- 1976: **Greenacre, M.** & Benzécri, J.-P., Tables à l'usage des investisseurs à l'étranger, *Cahiers de l'Analyse des Données* 1, 137-43.
- 1977: **Greenacre, M.** & Degos, L., Correspondence analysis of HLA gene frequency data from 124 population samples, *American Journal of Human Genetics* 29, 60-75. [GS 39; WS: 39]
- 1983 : Hudak, D.R., Steyn, P. & **Greenacre, M.**, Maximum temperature forecasting in weather prediction, *South African Journal of Science* 79, 6970. [WS 1]
- 1984: **Greenacre, M.** & Vrba, E.S., Graphical display and interpretation of antelope census data in African wildlife areas, using correspondence analysis, *Ecology* 65, 984-97. [GS 63; WS 65]
- 1986: **Greenacre, M.** & Browne, M.W., An efficient alternating least-squares algorithm for multidimensional unfolding, *Psychometrika* 51, 241-50. [GS 19; WS 9 ]
- 1986: Wyndham, C.H., **Greenacre, M.** & Wiles, F.J., Effects of personal, environmental and occupational factors on ischaemic heart disease in white miners in South Africa, *International Journal of Epidemiology* 15, 507-512.
- 1986: Wyndham, C.H., Bezuidenhout, B.N., **Greenacre, M.** & Sluis-Cremer, G.K., Mortality of middle aged white South African gold miners, *British Journal of Industrial Medicine* 43, 677-84. [GS 42; WS 41]
- 1987: **Greenacre, M.** & Hastie, T.J., The geometric interpretation of correspondence analysis, *Journal of the American Statistical Association* 82, 437-47. [GS 152; WS 106]
- 1987: **Greenacre, M.**, Influential analysis and presentation of survey data, *Journal of Applied Statistics* 14, 153 -64.
- 1987: Human, L. & **Greenacre, M.**, Labour market discrimination in the manufacturing sector: the impact of race, gender, education and age on income, *South African Journal of Economics* 55, 150-64. [WS 7]

- 1988: **Greenacre, M.**, Clustering the rows and columns of a contingency table, *Journal of Classification* 5, 39-51. [GS 46; WS 21]
- 1988: **Greenacre, M.**, Correspondence analysis of multivariate categorical data by weighted least squares, *Biometrika* 75, 457-467. [GS 52; WS 25]
- 1989: **Greenacre, M.**, The Carroll-Green-Schaffer scaling in correspondence analysis: a theoretical and empirical appraisal, *Journal of Marketing Research* 26, 358-65. [GS 44; WS:18]
- 1989: Du Plessis, P.J. & **Greenacre, M.**, Modelling information search behaviour of car purchasers, *South African Journal of Psychology* 19,138-43.
- 1990: **Greenacre, M.**, Some limitations of multiple correspondence analysis, *Computational Statistics Quarterly* 5, 249-56. [GS 19]
- 1991: L. Paul Fatti & **Greenacre, M.**, Anti-tartar toothpaste: the statistical story, *Journal of the Royal Statistical Society, Series A* 154,101-5.
- 1991: **Greenacre, M.**, Interpreting multiple correspondence analysis, *Applied Stochastic Models and Data Analysis* 7, 195-210. [GS 30]
- 1991: Monget, J-M., **Greenacre, M.** & Meut, L., Nouvelles methodes de représentation des données dans la conduite des systemes industriels complexes: application au contrôle du satellite Météosat, *Science Technique Technologie* 17, 3-8.
- 1991: Elias, J., Dauth, J., Senekal, J.K., van der Walt, P., Joubert, H.F., Kjihh,F. & **Greenacre, M.**, Serum beta-2-microglobulin in the differential diagnosis of monoclonal gammopathies, *South African Medical Journal* 79, 6503. [WS 3]
- 1992: **Greenacre, M.**, Correspondence analysis in medical research, *Statistical Methods in Medical Research* 1, 97-117. [GS 92; ]
- 1993: **Greenacre, M.**, Biplots in correspondence analysis, *Journal of Applied Statistics* 20, 251- 269. [GS 39]
- 1996: Gower, J.C. and **Greenacre, M.**, Unfolding a symmetric matrix, *Journal of Classification* 13, 81-105.
- 1998: Sieber, T.N., Petrini, O. & **Greenacre, M.**, Correspondence analysis as a tool in fungal taxonomy, *Systematic and Applied Microbiology* 21, 433-41. [GS 15; WS 11]
- 2000: **Greenacre, M.**, Correspondence analysis of square asymmetric matrices, *Applied Statistics* 49, 297-310. [GS 24; WS 6]
- 2002: Aitchison, J. & **Greenacre, M.**, Biplots of compositional data, *Applied Statistics* 51, 375-392. [GS 119; WS 14]
- 2002: **Greenacre, M.**, Correspondence analysis of the Spanish national health survey, *Gaceta Sanitaria* 16, 160-170. [GS 21]
- 2002: Torres, A. & **Greenacre, M.**, Dual scaling and correspondence analysis of preferences, paired comparisons and ratings, *International Journal of Research in Marketing* 19, 401-405. [GS 10; WS 5]
- 2002: **Greenacre, M.** & Clavel, J.G., Simultaneous visualization of two transition tables, *Statistics in Transition* 5, 823-835.
- 2002: **Greenacre, M.**, La distància de l'Eixample (The Eixample distance), *Qüestió* 26, 503-513.
- 2003: **Greenacre, M.**, Singular value decomposition of matched matrices, *Journal of Applied Statistics* 30, 1101-1113. [WS 3]
- 2006: Cuadras, C.M., Cuadras, D. & **Greenacre, M.**, A comparison of different methods for representing categorical data, *Communications in Statistics – Simulation and Computation* 35, 447-460. [WS 4]
- 2006: **Greenacre, M.** & Pardo, R., Subset correspondence analysis: visualization of selected response categories in a questionnaire survey, *Sociological Methods and Research* 35, 193-218. [GS 10; WS 4]
- 2006: Ambrose, W.G., Carroll, M.J., **Greenacre, M.**, Thorrold, S.R & McMahon, K.W. (2006). Variation in *Serripes groenlandicus* (Bivalvia) growth in a Norwegian high-Arctic fjord: evidence for local- and large-scale climate forcing. *Global Change Biology* 12, 1595-1607. [GS 13; WS 11]
- 2007: Nenadić, O. & **Greenacre, M.**, Correspondence analysis in R, with two- and three-dimensional graphics: the **ca** package. *Journal of Statistical Software* 20(3). URL <http://www.jstatsoft.org/v20/i03/> [GS 24; ]

- 2007: Scott, A.R., Cheng, A., **Greenacre, M.**, and Devlin, G. (2007). Implications of hyperglycaemia and ethnicity in patients with acute coronary syndromes in New Zealand. *Diabetes, Obesity and Metabolism* 9, 121–126. [WS 1]
- 2008: Iodice D'Enza, A., Palumbo, F. & **Greenacre, M.**, Exploratory data analysis leading towards the most interesting simple association rules. *Computational Statistics and Data Analysis* 52, 3269–3281 [WS 1].
- 2009: **Greenacre, M.** and Lewi, P. J. Distributional equivalence and subcompositional coherence in the analysis of compositional data, contingency tables and ratio scale measurements. *Journal of Classification* 26, 29–54. [GS 6]
- 2009: **Greenacre, M.** Power transformations in correspondence analysis. *Computational Statistics and Data Analysis* 53, 3107–3116. [GS 6; WS 1]
- 2009: Blasius, J., **Greenacre, M.**, Groenen, P.J.F., & van de Velden, M. Special issue on correspondence analysis and related methods, *Computational Statistics and Data Analysis* 53, 3103–3106.
- 2010: **Greenacre, M.** Log-ratio analysis is a limiting case of correspondence analysis. *Mathematical Geosciences* 42, 129–134.
- 2010: **Greenacre, M.** Correspondence analysis of raw data. *Ecology* 91, 958–963.
- 2010: **Greenacre, M.** & Hastie, T. Dynamic visualization of statistical learning algorithms in the context of high-dimensional textual data. *Journal of Web Semantics* 8 (2), 163–168.
- 2010: Carroll, M.L., Ambrose Jr., W.G., Levin, B.S., Ryan, S.K., Ratner, A.R., Henkes, G.A. & **Greenacre, M.J.** Climatic regulation of *Clinocardium ciliatum* (bivalvia) growth in the northwestern Barents Sea. *Palaeogeography, Palaeoclimatology and Palaeoecology* 302, 10–20.
- 2011: **Greenacre, M.** Measuring subcompositional incoherence. *Mathematical Geosciences* 43, 681–693.
- 2011: Aşan, Z. & **Greenacre, M.** Biplots of fuzzy coded data. *Fuzzy Sets and Systems* 183, 57–71.
- 2012: Cochrane, S.K.J., Pearson, T.H., **Greenacre, M.**, Costelloe, J., Dahle, S., Gulliksen, B. Benthic fauna and functional traits along a Polar Front transect in the Barents Sea – advancing tools for ecosystem-scale assessments. *Journal for Marine Systems*, 94, 204–217.
- 2013: **Greenacre, M.** The contribution of rare objects in correspondence analysis. *Ecology*, 94(1), 241–249.
- 2013: **Greenacre, M.** Fuzzy coding in constrained ordinations. *Ecology*, 94(2), 280–286.
- 2013: **Greenacre, M.** Contribution biplots. *Journal of Computational and Graphical Statistics*, 22(1), 107–122.
- 2013: Gori, A., Orejas, C., Madurell, T., Bramanti, L., Martins, M. Quintanella, E., Marti-Puig, P., Lo Iacono, C., Puig, P. Requena, S., **Greenacre, M.**, & Gili, J.M. Bathymetrical distribution and size structure of cold-water coral populations in the Cap de Creus and Lacaze-Duthiers canyons (northwestern Mediterranean). *Biogeosciences*, 10, 2049–2060.
- 2013: Aschan, M., Fosshiem, M, **Greenacre, M.** & Primicerio, R. Change in fish community structure in the Barents Sea. *PLoS ONE*, 8(4): e62748.
- 2013: Ambroso, S, Gori, A., Dominguez-Carrio, C., Gili, J.-M., Berganzo, E., Teixido, N., **Greenacre, M.**, Rossi, S. Spatial distribution patterns of the soft corals *Alcyonium acaule* and *Alcyonium palmatum* in coastal bottoms (Cap de Creus, northwestern Mediterranean Sea). *Marine Biology*, doi: 10.1007/s00227-013-2295-4.
- 2013: Båtnes, A., Miljeteig, C., Berge, J., **Greenacre, M.**, Johnsen, G. Quantifying the light sensitivity of *Calanus* spp. during the polar night: potential for orchestrated migrations conducted by ambient light from the sun, moon, or aurora borealis? *Polar Biology*, DOI 10.1007/s00300-13-1415-4
- 2013: Wiedmann, M., Aschan, M. Certain, G., Dolgov, A., Greenacre, M., Johannesen, E., and Primicerio, R. Functional diversity in the Barents Sea fish community. *Marine Ecology Progress Series*, in press, doi: 10.3354/meps10558

## Books

Citation counts given where possible as of 13/10/2010 [GS: Google Scholar]

- 1984: **Greenacre, M.**, *Theory and Applications of Correspondence Analysis*, Academic Press, London. [GS 2334]
- 1993: **Greenacre, M.**, *Correspondence Analysis in Practice*, Academic Press, London. [GS 764]
- 1994: **Greenacre, M.** & Blasius, J. (eds), *Correspondence Analysis in the Social Sciences: Recent Developments and Applications*, Academic Press, London. [GS 211]
- 1998: Blasius, J. & **Greenacre, M.** (eds), *Visualization of Categorical Data*, Academic Press, New York. [GS 65]
- 2006: **Greenacre, M.** and Blasius, J. (eds), *Multiple Correspondence Analysis and Related Methods*, Chapman & Hall/CRC Press, London. [GS 57]
- 2007: **Greenacre, M.**, *Correspondence Analysis in Practice (Second Edition)*. Chapman & Hall/CRC Press, London.
- 2008: **Greenacre, M.**, *La Práctica del Análisis de Correspondencias*. Fundación BBVA, Madrid (Spanish translation of Correspondence Analysis in Practice, Second Edition).
- 2010: Palumbo, F., Lauro, C. & **Greenacre, M.** (eds), *Data Analysis and Classification*, Springer, Heidelberg.
- 2010: **Greenacre, M.**, *Biplots in Practice*, Fundación BBVA, Madrid. Online at [www.multivariatestatistics.org](http://www.multivariatestatistics.org).
- **Greenacre, M.** & Primicerio, R., *Multivariate Analysis of Ecological Data*. BBVA Foundation, Madrid. Online at [www.multivariatestatistics.org](http://www.multivariatestatistics.org).

Submitted and in production:

- Blasius, J. & **Greenacre, M.** *Visualization and Verbalization of Data*. Chapman & Hall/CRC..

## Invited encyclopedia entries

- 2001: **Greenacre, M.**, Scaling: correspondence analysis, in *International Encyclopedia of the Social and Behavioral Sciences*, Elsevier, Amsterdam, pp. 13508-13512.
- 2004: Kroonenberg, P. & **Greenacre, M.**, Correspondence analysis, in *Encyclopedia of Statistical Sciences*, 2<sup>nd</sup> edition, Wiley, New York, pp. 1394-1403.
- 2005: **Greenacre, M.**, Simple and multiple correspondence analysis, in *Encyclopedia of Statistics in Behavioral Science*, Wiley, New York. [GS 196]

*(completed for forthcoming publication)*

- **Greenacre, M.**, Correspondence analysis, in *Encyclopedia of Consumer Culture*, CQ Press.
- **Greenacre, M.**, Statistics: Correspondence analysis, in *International Encyclopedia of Education*, Elsevier.
- **Greenacre, M.**, Correspondence analysis, in *International Encyclopedia of Political Science*, Sage.
- **Greenacre, M.**, Correspondence analysis, in *Wiley Interdisciplinary Reviews: Computational Statistics*, Wiley.
- **Greenacre, M.**, Biplots – the joy of SVD, in *Wiley Interdisciplinary Reviews: Computational Statistics*, Wiley.

## Research Articles in Books

- 1981: **Greenacre, M.**, Practical correspondence analysis, in Barnett, V. (ed.), *Interpreting Multivariate Data*, Wiley, U.K., pp.119-46. [GS 58]
- 1982: **Greenacre, M.** & Underhill, L.G., Scaling a data matrix in low-dimensional Euclidean space, in HaWSins, D.M. (ed.), *Topics in Applied Multivariate Analysis*, Cambridge University Press, U.K., pp.183-268. [GS 45]

- 1993: **Greenacre, M.**, Different geometric approaches to correspondence analysis of multivariate data, in Opitz, O., Lansen, B. and Klar, R. (eds.), *Information and Classification*, Springer-Verlag, Berlin, pp.199-200.
- 1994: **Greenacre, M.**, Multiple and joint correspondence analysis, in Greenacre, M.J. & Blasius, J. (eds.), *Correspondence Analysis in the Social Sciences*, Academic Press, London, pp.141-161. [GS 28]
- 1994: **Greenacre, M.**, Correspondence analysis and its interpretation, in Greenacre, M.J. & Blasius, J. (eds.), *Correspondence Analysis in the Social Sciences*, Academic Press, London, pp.3-22.[GS 73]
- 1994: Blasius, J. & **Greenacre, M.**, Computation of correspondence analysis, in Greenacre, M.J. & Blasius, J. (eds.), *Correspondence Analysis in the Social Sciences*, Academic Press, London, pp.53-78. [GS 26]
- 1995: **Greenacre, M.** & Fieler, R., Some applications of multivariate analysis in environmental research, in Tut, E. -M., Kollo, T. and Niemi, H. (eds.), *Multivariate Statistics and Matrices in Statistics*, VSP, The Netherlands, pp.197-210.
- 1995: **Greenacre, M.**, Multivariate generalisations of correspondence analysis, in Cuadras, C.M. and Rao, C.R. (eds), *Multivariate Analysis: Future Directions 2*, North Holland, Amsterdam, pp. 327- 340.
- 1997: **Greenacre, M.** & Blasius, J., Correspondence analysis of square tables, with an application to social mobility, in Klar, R. and Opitz, O. (eds.), *Classification and Knowledge Organization*, Springer-Verlag, Berlin, 573-580.
- 1998: **Greenacre, M.**, Diagnostics for joint displays in correspondence analysis, in Jorg Blasius and Michael Greenacre (eds.), *Visualization of Categorical Data*, Academic Press, New York, pp.221-238.
- 2001: Cuadras, C.M., Fortiana, J. & **Greenacre, M.**, Continuous extensions of matrix formulations in correspondence analysis, with applications to the FGM family of distributions, in Heijmans, R.D.H., Pollock, D.S.G. and Satorra, A. (eds.), *Innovations in Multivariate Statistical Analysis*, Kluwer, Dordrecht, pp.101-116. [GS 14]
- 2006: Blasius, J. & **Greenacre, M.**, Correspondence analysis and related methods, in Greenacre, M.J. & Blasius, J. (eds.) *Multiple Correspondence Analysis and Related Methods*, Chapman & Hall/CRC Press, London.
- 2006: **Greenacre, M.**, From simple to multiple correspondence analysis, in Greenacre, M.J. & Blasius, J. (eds.) *Multiple Correspondence Analysis and Related Methods*, Chapman & Hall/CRC Press, London. [GS 11]
- 2006: **Greenacre, M.** & Pardo, R., Multiple correspondence analysis of subsets of response categories, in Greenacre, M.J. & Blasius, J. (eds.) *Multiple Correspondence Analysis and Related Methods*, Chapman & Hall/CRC Press, London, pp. 197–217.
- 2006: Nenadić, O. & **Greenacre, M.**, Computation of multiple correspondence analysis, with code in R, in Greenacre, M.J. & Blasius, J. (eds.) *Multiple Correspondence Analysis and Related Methods*, Chapman & Hall/CRC Press, London. [GS 27]
- 2007: **Greenacre, M.**, Tying up the loose ends in simple, multiple and joint correspondence analysis, in Rizzi, A. and Vichi, M. (eds) *COMPSTAT 2006: Proceedings in Computational Statistics*, Springer-Verlag, Heidelberg. [WS 1]
- 2009: **Greenacre, M.**, Canonical correspondence analysis in the social sciences, in Locarek-Junge, H. & Weihs, C. (eds) *Classification as a Tool for Research*, Springer, Berlin, pp. 279–286.
- 2011: **Greenacre, M.**, Compositional data and correspondence analysis, in Pawlowsky-Glahn, V. and Buccianti, A. (eds), *Compositional Data Analysis*, Wiley, Chichester. doi: 10.1002/9781119976462.ch8

### **Invitations to workshops and conferences, including keynotes (last 10 years)**

- 1999 (January): “Geometry of matched matrices.” *International Conference of the Geometry of Data Analysis*, Oxford University, U.K.
- 1999 (March): “Equivalent definitions of correspondence analysis.” **Keynote speaker** at *Annual Meeting of Finnish Statistical Association*, University of Joensuu, Finland.

- 2000 (July): “The Millennium Song as an international educational project.” 7<sup>th</sup> I\*EARN (*International Education and Resource Network*) conference, Beijing, China.
- 2000 (October): “Joint correspondence analysis.” RC33 *Conference on Social Science Methodology*, University of Cologne, Germany.
- 2000 (November): “Statistics for Arctic environmental research.” *Kongsfjord Ecosystem Workshop*, UNIS, Svalbard.
- 2001 (June): “Applications of correspondence analysis to medical and health data.” *Annual Conference of Spanish Association for Health Economics*, University of Oviedo, Spain.
- 2001 (September): “Biplots of compositional data”. *International Conference on Methodology and Statistics*, University of Ljubljana, Slovenia.
- 2002 (July): “Distributional equivalence in logratio biplots.” (with John Aitchison). *Biannual Conference of International Federation of Classification Societies*, University of Krakow, Poland.
- 2004 (March): “Weighted metric biplots.” *International Conference of German Classification Society*, University of Dortmund, Germany.
- 2006 (August): “Tying up the loose ends in simple, multiple and joint correspondence analysis.” **Keynote speaker** at *COMPSTAT 2006 (Biannual Conference of International Association for Statistical Computing)*, University of Rome “La Sapienza”, Italy.
- 2006 (December): “Correspondence analysis in social science research.” **Keynote speaker** at *ACSPRI (Australian Consortium for Social and Political Research) Methodology Conference*, Sydney Australia.
- 2007 (February): “Correspondence analysis and weighted logratio mapping.” **Keynote speaker** at *JOCLAD 2007 (Portuguese Classification and Data Analysis Society)*, Porto, Portugal.
- 2008 (July): “Positioning the “middle” categories in survey research: a multidimensional approach” (joint with R. Pardo). **Keynote speaker** at the joint conference of the *European Methodology Association*, and *Society for Multivariate Analysis in the Behavioural Sciences*, Oviedo, Spain.
- 2009 (April): “Dynamic graphics as a teaching and research tool.” **Keynote speaker** at *JOCLAD 2009 (Portuguese Classification and Data Analysis Society)*, University of Algarve, Faro, Portugal.
- 2009 (June): “Dynamic graphics in life sciences research.” Invited as **Keynote speaker** to the annual conference of the *Information Technology Interface (ITI)*, Croatia; includes **invitation** to give three-hour workshop on “Correspondence analysis in ecological research” in the parallel conference on Biometrics.
- 2009 (July): “Dynamic transition between multivariate methods.” Invited as **Keynote speaker** to the annual conference of *UseR!* (R users group), Rennes, France.
- 2009 (October): “Dynamic perceptual mapping.” Invited as **Keynote speaker** to the annual conference of the *Australian Social and Market Research Society*, Sydney, Australia.
- 2010 (September): “Measuring subcompositional incoherence in contingency tables and compositional data.” *Joint Conference of German and Italian Classification Societies*, Florence, Italy.
- 2011 (February): “Unifying the geometry of simple and multiple correspondence analysis”. 6<sup>th</sup> International CARME conference on Correspondence Analysis and Related Methods, Rennes, France.
- 2011 (June): “Biplot videos” **Invited speaker** at the joint conference of International Workshop of Matrices and Statistics and Multivariate Analysis, Tartu, Estonia.
- 2011 (October): “Correspondence analysis, chi-square distance and rare objects”. International workshop CARME in ASSOS, Assos, Turkey.
- 2012 (September): “Correspondence analysis in ecological research”, 14<sup>th</sup> Biostatistics Congress, Kayseri, Turkey. **Keynote speaker**.
- 2012 (October): “Statistics and the Singular Value Decomposition The Joy of SVD”, 14<sup>th</sup> Statistics Congress, Eskişehir, Turkey. **Keynote speaker**.
- 2012 (December): “Fuzzy coding in constrained ordinations”, ERCIM 2012, Oviedo, Spain.

## Conference organization

Organized (jointly with Jörg Blasius, formerly University of Cologne, presently University of Bonn) the following series of quadriennial international conferences:

- *Correspondence Analysis in the Social Sciences*. University of Cologne, May 1991.
- *Visualization of Categorical Data*. University of Cologne, May 1995.
- *Large Scale Data Analysis*. University of Cologne, May 1999.
- *Correspondence Analysis and Related Methods (CARME 4)*, Universitat Pompeu Fabra, Barcelona, June 2003.
- *Correspondence Analysis and Related Methods (CARME 5)*, Erasmus University, Rotterdam, Holland. June 2007.
- *Correspondence Analysis and Related Methods (CARME 6)*, Agrocampus, Rennes, France, February 2011.

Organized (jointly with Zerrin Aşan, Jörg Blasius and Patrick Groenen) the international workshop CARME in ASSOS, Assos, Turkey, October 2011.

## Short courses given internationally (*recent and forthcoming*)

- *Correspondence Analysis in Practice*: Dalhousie University, Halifax, Canada (1 week, June 2004), BBVA Foundation, Madrid, Spain (3 days, March 2005, with computer laboratory, assisted by Antonella Curci, University of Bari), University of British Columbia, Vancouver, Canada (2 weeks, June 2005), McQuarie University, Sydney (2 days, December 2006), University of Padova, Italy (3 days, June 2008), Universitat Autònoma de Barcelona, assisted by Jan Graffelman (3 days, June 2010).
- *Multivariate Data Analysis for Marine Biologists* (or, in some cases, broadened to *Environmental Biologists*), with daily computer laboratory, assisted by Raul Primicerio (Norwegian College of Fishery Science, Tromsø): Polar Institute, Tromsø, Norway (5 days: May 2004), BBVA Foundation, Madrid, Spain (3 days: November 2005, May 2006, April 2007, September 2008), Marine Research Institute, Reykjavik, Iceland (5 days: September 2006), University of Tromsø (2 weeks: May 2005, June-July 2006; 5 days: April 2007, February 2008, March 2009, April 2010), University of Parma (3 days: February 2009), University of Stellenbosch, South Africa (3 days: December 2009), Italian Ecological Society (Parma, 3 days, February 2009; Ancona 3 days, February 2010), University of Lancaster, UK (3 days: March 2010), Institute for Marine Research, Tromsø (3 days, April 2010), South African Statistical Association annual conference, Potchefstroom (2 days, November 2010), University of Tromsø (5 days, March 2011).
- *Statistical Learning* (as an assistant to Trevor Hastie, Stanford University): workshop at BBVA Foundation, Madrid, Spain (3 days: April 2008, July 2009).
- *Biplots in Practice*: University of Cassino, Italy (2 days, September 2010); workshop at BBVA Foundation, Madrid (3 days, October 2010); Central Archive for Empirical Social Research, Cologne, Germany (March 2011).
- *Applied Statistical Genetics for Population-based Association Studies* (as assistant to Andrea Foulkes, University of Massachusetts): workshop at BBVA Foundation, Madrid, Spain (2 days: October 2011).

## Awards and distinctions

- 1988 (November): *Marketing Research Standards Authority prize* for the paper (with Vincent Shahim) entitled “Brand Maps, Ideal Points and Market Gaps” at the annual conference of the *South African Marketing Research Association*. The prize is awarded to the paper “that most contributes to increasing and improving research in marketing.”



- 1989 (September): *University of South Africa Council Award for Academic Excellence*, renewed September 1991
- 1993 (November): classified in the *A category* by the *Foundation for Research Development*, South Africa (A category = “researchers that without any doubt have been accepted by the international community as leaders in their fields”).
- 2008 (December): semi-finalist out of 70 entries worldwide (jointly with Trevor Hastie, Stanford University) in the *Elsevier Grand Challenge: Knowledge Enhancement in the Life Sciences*, held at MIT, Boston, 15 December 2008, for the project “Guided tours in  $n$ -dimensional space: dynamic visualization of multivariate data.” The competition aimed “to improve the way scientific information is communicated and used, specifically (1) to improve the process/methods/results of creating, reviewing and editing scientific content; (2) to interpret, visualize or connect the knowledge more effectively; and/or (3) to provide tools/ideas for measuring the impact of these improvements.

## Musical CV

- Performed (piano & guitar) several times with Gurdeep Stephens at Tossa de Mar autumn music festival, and various art exhibition openings and events in Barcelona.
- 1999: CD of own compositions, “*you, woman*” published (Wheat Machine records).
- 2000: CD of *The Millennium Song*, written and arranged by Michael Greenacre, and sung by Gurdeep Stephens in English, Catalan, Spanish, Basque and Galician, published by Universitat Pompeu Fabra for its 10<sup>th</sup> anniversary. [www.globalsong.net](http://www.globalsong.net)
- 2004 & 2005: resident pianist at historic *Poseidonion Hotel*, Spetses Island, Greece, for 3 and 5 weeks respectively, during summer season.
- 2011: resident pianist at *Rica Hotel, Tromsø*, Norway, for 10 days.
- 2013: Second CD of own compositions, “*below the surface*”, in production.
- Played occasionally at restaurants in Barcelona (notably *Set Portes* and *Els Quatre Gats*), also in Oslo (*Café Sorgenfrei*), and London (*Organic Café*).
- Inaugurated (with Gurdeep Stephens singing) the *International Workshop on Statistical Modelling*, Barcelona July 2007, with *El Cant dels Ocells* and four satirical songs written especially for the meeting: [www.youtube.com/StatisticalSongs](http://www.youtube.com/StatisticalSongs)
- Annually in January organizes music performances at the ARCTOS Young Scientist Forum in Arctic Ecology, northern Norway.
- Plays piano regularly weekends at *Niu Nou* restaurant, Bagà (Pirineus, Catalunya).