

**Peter FILZMOSER**  
**Curriculum Vitae**  
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**Contact address**

Head of Research Group *Computational Statistics*  
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**PERSONAL**

Birth date: May 3, 1968  
Married, four children  
Austrian Citizen

**EDUCATION**

Engineer's degree, Graduate School for Electrical Engineering Wels, 1987  
Master's degree, Vienna University of Technology, 1993 (Mathematics)  
Doctor of Technical Sciences, Vienna University of Technology, 1996 (Mathematics)  
Habilitation, Vienna University of Technology, 2001 (Statistics)

**EMPLOYMENT**

1993–2001: Assistant Professor, Department of Statistics and Probability Theory, TU Wien.  
March–July 2005: Visiting Professor, Department of Statistics and Decision Support Systems, University of Vienna.  
January and June 2007: Visiting Professor, GREMAQ (Groupe de Recherche en Economie Mathématique), Université de Toulouse I, France.  
March–May 2008: Visiting Professor, Department of Applied Mathematics, Belarusian State University, Minsk, Belarus.  
2012–2015: Consultant for Palacký University Olomouc, Czech Republic (1/2 position)  
2001–2017: Associate Professor, Department of Statistics and Probability Theory, TU Wien.  
2017–present: Full Professor, Institute of Statistics and Mathematical Methods in Economics, TU Wien.

**COURSES TAUGHT**

Introductory Statistics, Multivariate Statistics, Robust Statistics, Statistical Computing, Geostatistics, Exploratory Data Analysis and Visualization, Probability Theory, Econometrics, Advanced Regression and Classification, Classification and Discriminant Analysis

## DOCTORAL THESES (SUPERVISOR OR ESSENTIALLY INVOLVED)

- Greet Pison: Robust multivariate analysis and diagnostic tools, Univ. Anwerp, June 2002.
- Pantelis Christodoulides: Principal plane analysis: Introducing criteria for the simultaneous extraction of principal planes, TU Wien, December 2002.
- Sabine Verboven: Robust calibration methods, Univ. Antwerp, March 2004.
- Sven Serneels: Robustness and uncertainty in multivariate calibration, Univ. Antwerp, June 2005.
- Sonja Huber: The measurement of operational risks – Considering the loss distribution approach in combination with robust statistics, Univ. Innsbruck, January 2009.
- Valentin Todorov: Multivariate robust statistics: methods and computation, TU Wien, April 2009.
- Matthias Templ: New developments in statistical disclosure control and imputation in Official Statistics, TU Wien, May 2009.
- Bettina Liebmann: Chemometric methods and near-infrared spectroscopy applied to bioenergy production, TU Wien, August 2010.
- Andreas Alfons: On statistical simulation and robust statistics with application to Laeken indicators and quality of life research, TU Wien, October 2010.
- Heinrich Fritz: Robust clustering and dimension reduction: Methods, algorithms and implementation, TU Wien, September 2011.
- Brian Godsey: Probabilistic modeling of high-dimensional and high-throughput biological data, TU Wien, November 2013.
- Cagatay Turkey: Integrating computational tools in interactive and visual methods for enhancing high-dimensional data and cluster analysis, University of Bergen, Norway, November 2013.
- Petra Kynclova: Methodological contributions to compositional data analysis, TU Wien, January 2016.
- Mehmet Can Mert: Theoretical and practical aspects in compositional data analysis, TU Wien, October 2016.
- Fatma Sevinc Kurnaz: New robust penalized estimators for linear and logistic regression, Yildiz Technical University, Istanbul, Turkey, June 2017.
- Sara de la Rosa de Saa: Scale measures with fuzzy data: Analyzing their robustness and application to fuzzy rating scale-based questionnaires, University of Oviedo, Spain, June 2017.
- Thomas Ortner: Local projections for high-dimensional data analysis, TU Wien, October 2017.
- Irene Hoffmann: Sparse and robust modeling for high-dimensional data, TU Wien, November 2017.
- Šárka Brodinová: Robust statistical grouping methods for high-dimensional data, TU Wien, November 2017.
- Fabian Schroeder: Cost sensitive screening methods for binary classification, TU Wien, June 2018.
- Jan Walach: Robust log-ratio methods for classifying high-dimensional metabolomics data, TU Wien, March 2019.
- Dominika Mikšová: Advanced statistical methods for geochemical mineral exploration, TU Wien, May 2020.

## HONORS and AWARDS

- 1992: Förderungstipendium of the Vienna University of Technology awarded for my diploma thesis.
- 1996: Mobilitätstipendium of the Creditanstalt-Bankverein awarded for my doctoral thesis.

- 2003: Talentförderungsprämie (section “Science”) from Land Oberösterreich.
- 2007: Scholarship of the Austrian Research Association for research and teaching activities in Minsk/Belarus.
- 2008: e-Learning award, Vienna University of Technology.
- 2014: Elected Member of the International Statistical Institute (ISI).
- 2019: Felix Chayes Prize awarded from the International Association for Mathematical Geosciences (IAMG) for Excellence in Research in Mathematical Petrology.

## MEMBERSHIP IN SCIENTIFIC ORGANIZATIONS AND NETWORKS

- Member of the ESF Network “Statistical Analysis of Complex Data with Robust and Related Statistical Methods (SACD)” of the European Science Foundation, together with 9 other research partners of statistical institutions in Europe, 2004-2006.
- Co-Chair of the European Research Consortium for Informatics and Mathematics (ERCIM) Working Group “Computing & Statistics”
- Member of the COST Action IC0702 – Combining Soft Computing Techniques and Statistical Methods to Improve Data Analysis Solutions – European Science Foundation, 2008-2012.
- Chair member of STUDIA (Studiengruppe für Internationale Analysen) in Schlierbach.
- Chair member of the Austrian Statistical Society.
- Member of “The International Association for Statistical Computing (IASC)”, since 2009.
- Member of the Board of Directors of the European Regional Section, “The International Association for Statistical Computing (IASC)”, since 2010.
- Member of the Executive Committee of “The International Association for Statistical Computing (IASC) (2013-2017)”.

## ORGANIZATION OF EVENTS

- Main organizer of the “International Conference on Robust Statistics” (ICORS 2001), 23-27 July 2001, Vorau, Austria.
- Organizer of the “Workshop TU Wien—STUDIA”, 3-5 September 2002, Schlierbach, Austria.
- Main organizer of the workshop “Robust Modeling of Environmental Data” (RMED’03), 9-10 July 2003, Vorau, Austria.
- Main organizer of the “Workshop on Robustness for High-dimensional Data” (RobHD’04), 5-8 May 2004, Vorau, Austria.
- Member of the Scientific Programme Committee of the “Conference on Computational Statistics” (COMPSTAT 2004), 23-27 August 2004, Prague, Czech Republic.
- Co-chair of the Programme Committee of the “Seventh International Conference Computer Data Analysis and Modeling”, 6-10 September 2004, Minsk, Belarus.
- Member of the Scientific Programme Committee of the international workshop “Developments in Statistical Methodology: Diagnostics, Robustness, Exploration, and Modeling” (DREaM 2005), March 30 – April 2, 2005, Milton Keynes and Cranfield, United Kingdom.
- Member of the Scientific Programme Committee of the “International Conference on Robust Statistics” (ICORS 2005), 12-17 June 2005, Jyväskylä, Finland.
- Member of the Scientific Programme Committee of the international workshop “Perspectives in Modern Statistical Inference III”, 18-22 July 2005, Mikulov, Czech Republic.
- Co-organizer of the workshop “Robust Statistics and R”, 26-28 October 2005, Treviso, Italy.

- Member of the Scientific Programme Committee of the “International Conference on Robust Statistics” (ICORS 2006), 12-17 July 2006, Lisbon, Portugal.
- Co-chair of the Programme Committee of the “Eight International Conference Computer Data Analysis and Modeling”, 11-15 September 2007, Minsk, Belarus.
- Member of the Scientific Programme Committee of the “International Conference on Robust Statistics” (ICORS 2007), 17-21 September 2007, Buenos Aires, Argentina.
- Co-organizer of the workshop “Robust Statistics and R”, October 28 – November 2, 2007, Banff, Canada.
- Member of the Scientific Programme Committee of the “First International Conference of the ERCIM Working Group on Computing & Statistics”, 19-21 June 2008, Neuchatel, Switzerland.
- Member of the Scientific Programme Committee of the “International Conference on Robust Statistics” (ICORS 2008), 8-12 September 2008, Antalya, Turkey.
- Organizer of the workshop “Statistik/Stochastik der TU Wien/TU Dresden”, 24-28 September 2008, Vorau, Austria.
- Member of the Scientific Programme Committee of the “International Conference on Robust Statistics” (ICORS 2009), 14-19 June 2009, Parma, Italy.
- Member of the Scientific Programme Committee of the “Second International Conference of the ERCIM Working Group on Computing & Statistics”, 29-31 October 2009, Limassol, Cyprus.
- Member of the Scientific Programme Committee of the “International Conference on Indicators and Survey Methodology”, 24-26 February 2010, Vienna, Austria.
- Member of the Scientific Programme Committee of the “Workshop on Exploratory Data Analysis and Visualization”, 27-28 May 2010, Vienna, Austria.
- Member of the Scientific Programme Committee of the “International Conference on Robust Statistics” (ICORS 2010), June 28 - July 2, 2010, Prague, Czech Republic.
- Co-chair of the Program Committee of the “International Conference Computer Data Analysis and Modeling”, 7-11 September 2010, Minsk, Belarus.
- Local organizer of the “15th Young Statisticians Meeting”, 29-31 October 2010, Vorau, Austria.
- Member of the Scientific Programme Committee of the “Third International Conference of the ERCIM Working Group on Computing & Statistics”, 10-12 December 2010, London, UK.
- Member of the Scientific Programme Committee of the “International Conference on Robust Statistics” (ICORS 2011), June 27 - July 1, 2011, Valladolid, Spain.
- Member of the Scientific Programme Committee of the “Statistik-Tage der Österreichischen Statistischen Gesellschaft”, 7-9 September 2011, Graz, Austria.
- Member of the Scientific Programme Committee of the “First International Conference on Pattern Recognition Applications and Methods”, 6-8 February 2012, Vilamoura, Portugal.
- Member of the Scientific Programme Committee of the “20th International Conference on Computational Statistics” (Compstat 2012), 27-31 August 2012, Limassol, Cyprus.
- Main organizer of the “Statistische Woche 2012”, 18-21 September 2012, Vienna, Austria.
- Main organizer of the “Workshop on Compositional Data Analysis” (CoDaWork 2013), 3-7 June 2013, Vorau, Austria.
- Member of the Scientific Programme Committee of the “International Conference on Robust Statistics” (ICORS 2013), 7-11 July, 2013, St. Petersburg, Russia.
- Co-chair of the Program Committee of the “International Conference Computer Data Analysis and Modeling”, 10-14 September 2013, Minsk, Belarus.

- Main organizer of the “IASC-ERS Summer School on R”, 23-27 September 2013, Vorau, Austria.
- Member of the Scientific Programme Committee of the “Österreichische Statistiktage”, 23-25 October 2013, Vienna, Austria.
- Member of the Scientific Programme Committee of “GeoMap” (Workshop on Practical Aspects of Geochemical Exploration and Mapping with Logratio Techniques), 17-20 June 2014, Olomouc, Czech Republic.
- Member of the Scientific Programme Committee of “International Conference on Robust Statistics” (ICORS 2015), 12-16 January, 2015, Kolkata, India.
- Member of the Scientific Programme Committee of “Workshop on Compositional Data Analysis” (CoDaWork 2015), 1-5 June 2015, Girona, Spain.
- Member of the Scientific Programme Committee of the “Workshop on Compositional Data Analysis” (CoDaWork 2017), 5-9 June 2017, Abbadia San Salvatore, Italy.
- Head of the Scientific Programme Committee of the 1st conference on “Data Science, Statistics & Visualisation” (DSSV 2017), 12-14 July 2017, Lisbon, Portugal.
- Member of the Scientific Programme Committee of the “International Conference on Robust Statistics” (ICORS 2017), 3-7 July 2017, Wollongong, Australia.
- Member of the Scientific Programme Committee of the “18th Annual Conference of the International Association for Mathematical Geosciences” (IAMG 2017), 2-8 September 2017, Perth, Australia.
- Organizer of the 1st Workshop “Mountain Village Science Series” (MOVISS 2017), 20-23 September 2017, Vorau, Austria.
- Organizer of the “R Summer School”, 25-27 September 2017, Vorau, Austria.
- Member of the Scientific Programme Committee of the “18th International Summer Conference on Probability and Statistics” (ISCPS 2018), 25-30 June 2018, Pomorie, Bulgaria.
- Member of the Scientific Programme Committee of the 2nd conference on “Data Science, Statistics & Visualisation” (DSSV 2018), 9-11 July 2018, Vienna, Austria.
- Organizer of the 2nd Workshop “Mountain Village Science Series” (MOVISS 2018), 9-12 September 2018, Vorau, Austria.
- Member of the Scientific Programme Committee of the “International Conference on Robust Statistics” (ICORS 2019), 28-31 May 2019, Guayaquil, Ecuador.
- Member of the Scientific Programme Committee of the “Cconference on “Data Science, Statistics & Visualisation” (DSSV 2019), 13-15 August 2019, Kyoto, Japan.
- Organizer of the 20th International Conference on Robust Statistics (ICORS 2020), 6-10 July 2020, Vienna, Austria.
- Member of the Scientific Programme Committee of the “Cconference on “Data Science, Statistics & Visualisation” (DSSV 2020), 29-31 July 2020, NC State University, USA.
- Member of the Scientific Programme Committee of the 10th International Conference on Soft Methods in Probability and Statistics (SMPS 2020), 16-18 September 2020, Valladolid, Spain.

## FUNDED PROJECTS

- For EVN (Company for power supply in Lower Austria): “Statistical acquisition of the quality of power supply for clients of EVN”, together with R. Dutter, 2001.
- For STEWEAG (Company for power supply in Styria): “Development of a quality assurance method by selection of measurement points”, together with R. Dutter, 2002.
- EuroConference, funded by the European Commission, for the organization of the “International Conference on Robust Statistics” (ICORS 2001), July 23-27, 2001, in Vorau, Austria.

- For OMV (Austrian oil company): “Study about the prediction of the composition of crude oil”, together with N. Neykov and P. Neytchev (Bulgarian Academy of Sciences), 2004.
- For Land Niederösterreich: “Study about the probability of too small distances between boreholes”, together with H. Filzmoser, 2006.
- For FFG (Österreichische Forschungsförderungsgesellschaft): “Future of communities by the analysis of success factors”, together with the institutions SPES and STUDIA in Schlierbach. Duration: April 2007 - March 2009.
- For Main Association of the Austrian Social Insurance Institutions: “Prediction quality of the derivation from the ATC code to the ICD-10”, together with N. Neykov and P. Neytchev (Bulgarian Academy of Sciences). Duration: April 2008 - March 2009.
- FP7 Project AMELI (Advances Methods for European Laeken Indicators), together with University of Trier (coordinator), DESTATIS, University of Applied Sciences North-western Switzerland, SFSO, Statistics Finland, University of Helsinki. Duration: April 2008 - April 2011.
- For Main Association of the Austrian Social Insurance Institutions: “Development of statistical methods for the case mix setting”. Duration: March 2009 - December 2009.
- For Main Association of the Austrian Social Insurance Institutions: Several projects for GAP-DRG, 2010-2012.
- For FFG (Österreichische Forschungsförderungsgesellschaft): “IFEDH - Innovative Framework for Evidence Based Decision-making in Healthcare”, together with 9 other Austrian institutions. Duration: October 2010 - September 2012.
- For BASF: “Entwicklung eines neuen Regressionsverfahrens Sparse Partial Robust M Regression”. Duration: March 2014 - December 2014.
- For FFG (Österreichische Forschungsförderungsgesellschaft): “DEXHELPP - Decision Support for Health Policy and Planning: Methods, Models and Technologies based on Existing Health Care Data”, together with 9 other Austrian institutions. Duration: July 2014 - June 2018.
- For FWF (Fonds zur Förderung der wissenschaftlichen Forschung): “Meteorite chemistry and comparison with Rosetta comet data”, together with 6 other institutions. Duration: October 2014 - September 2017.
- For The World Bank: “Improving the quality of sample household expenditure data and the reliability of poverty and inequality measures”. Duration: October 2014 - September 2015.
- For Semperit: “Development of an online quality control system for medical glove production”, Duration: March-December 2015.
- For FWF (Fonds zur Förderung der wissenschaftlichen Forschung): “Statistics in metabolomics for biomarker research in medicine”, together with Palacky University Olomouc. Duration: January 2015 - December 2017.
- For ÖeAD (Österreichischer Austauschdienst): “Computer data analysis and modeling for complex stochastic systems”, IMPULSE project, joint with Belarussian State University Minsk. Duration: April 2016 - March 2018.
- For FFG (Fonds zur Förderung der wissenschaftlichen Forschung): “Development of tools for controlling, optimizing and analyzing music sales”, together with Rebeat (Tulln, Austria). Duration: September 2016 - August 2018. For FWF (Fonds zur Förderung der wissenschaftlichen Forschung): “Neue methodische Entwicklungen für GAMs und VGAMs”. Duration: Jan. 2020 - Dec. 2022.

## PROFESSIONAL SOFTWARE

- Package *chemometrics* for R (<http://www.R-project.org>): Software for statistical data analysis of data from chemometrics.
- Package *clustTool* for R (<http://www.R-project.org>): Software for clustering data with spatial dependence.
- Package *mvoutlier* for R (<http://www.R-project.org>): Software for multivariate outlier detection.
- Package *pcaPP* for R (<http://www.R-project.org>): Robust principal component analysis based of projection pursuit.
- Package *robCompositions* for R (<http://www.R-project.org>): Robust estimation for compositional data.
- Package *StatDA* for R (<http://www.R-project.org>): Software for statistical data analysis of data with spatial dependence.
- Package *tlemix* for R (<http://www.R-project.org>): Software for robust fitting of finite mixture models.

## RESEARCH VISITS

Aug./Sept. 1997: Université Libre de Bruxelles, Belgium (Prof. Croux)  
 Sept./Oct. 1997: Universitaire Instelling Antwerpen, Belgium (Prof. Rousseeuw)  
 Feb. 1998: Universitaire Instelling Antwerpen, Belgium (Prof. Rousseeuw)  
 Oct./Nov. 1998: Université Libre de Bruxelles, Belgium (Prof. Croux)  
 Nov./Dec. 1999: Université Libre de Bruxelles, Belgium (Prof. Croux)  
 Aug. 2000: Université Libre de Bruxelles, Belgium (Prof. Croux)  
 June 2001: Université Libre de Bruxelles, Belgium (Prof. Croux)  
 July 2002: Katholieke Universiteit Leuven, Belgium (Prof. Croux)  
 Oct./Nov. 2002: Instituto Superior Tecnico Lisbon, Portugal (Prof. Branco)  
 Sept. 2005: Charles University Prague, Czech Republic (Prof. Visek)  
 Nov. 2005: Katholieke Universiteit Leuven, Belgium (Prof. Croux)

## EDITORIAL WORK

### Associate Editor of

Journal of Data Science, Statistics, and Visualisation (since 2019), Journal of the Belarusian State University. Mathematics and Informatics (since 2019), AStA Advances in Statistical Analysis (since 2017), Austrian Journal of Statistics (since 2013), Journal Computational Statistics (since 2007), Computational Statistics & Data Analysis (2010-2016), Chemometrics and Intelligent Laboratory Systems (since 2014), Journal of Geochemical Exploration (2014-2017)

### Reviewer for

Advances in Data Analysis and Classification, Analytica Chimica Acta, Applied Geochemistry, Australian Journal of Statistics, Austrian Journal of Statistics, Bioinformatics, Biometrical Journal, Chemosphere, Communications in Statistics - Theory and Methods, Computational Statistics and Data Analysis, Computers & Geosciences, Economics Bulletin, EURASIP Journal of Advances in Signal Processing, Fuzzy Sets and Systems, Geochemistry: Exploration, Environment, Analysis (GEEA), Geochimica et Cosmochimica Acta, Geoderma, Information Sciences, Iranian Journal of Science and Technology, Journal of Applied Statistics, Journal of Chemometrics, Journal of Classification, Journal of Computational and Graphical Statistics, Journal of Geochemical Exploration, Journal of Hydrology, Journal of Multivariate Analysis, Journal of Statistical Planning and Inference, Journal of the American

Statistical Association, *Metrika*, *Metron*–International Journal of Statistics, Mineralogy and Petrology, Nonlinear Dynamics, *Psychometrika*, *Revstat*, South African Statistical Journal, Statistical Applications in Genetics and Molecular Biology, *Statistics and Decisions*, *Statistical Papers*, *Technometrics*, *Test*, *The Annals of Applied Statistics*

### Special issue editor of

- A. Buccianti, P. Filzmoser, K. Hron, editors. *Computers & Geosciences*, 134, 2020.  
P. Filzmoser, Yu. Kharin, editors. *Austrian Journal of Statistics*, 49(4), 2020.  
P. Filzmoser, Yu. Kharin, editors. *Austrian Journal of Statistics*, 46(3& 4), 2017.  
P. Filzmoser, K. Hron, and R. Tolosana-Delgado, editors. *Applied Geochemistry*, 75, 2016.  
P. Filzmoser and K. Hron, editors. *Statistical Modelling*, 15(2), 2015.  
P. Filzmoser, Yu. Kharin, editors. *Austrian Journal of Statistics*, 43(3& 4), 2014.  
P. Filzmoser, C. Gatu, and A. Zeileis, editors. Special issue on “Statistical Algorithms and Software in R”, *Computational Statistics & Data Analysis*, 71, 2014.  
P. Filzmoser, R. Viertl, editors. *Austrian Journal of Statistics*, 41(1), 2012.  
P. Filzmoser, Yu. Kharin, editors. *Austrian Journal of Statistics*, 40(1& 2), 2011.  
R. Dutter, P. Filzmoser, Yu. Kharin, editors. *Austrian Journal of Statistics*, 37(1), 2008.  
R. Dutter, P. Filzmoser, Yu. Kharin, editors. *Austrian Journal of Statistics*, 34(2), 2005.  
R. Dutter, P. Filzmoser, U. Gather, and P.J. Rousseeuw, editors. *Metrika*, 55(1), 2002.  
R. Dutter, P. Filzmoser, U. Gather, and P.J. Rousseeuw, editors. *Metrika*, 55(2), 2002.

### Book editor of

- C. Agostinelli, A. Basu, P. Filzmoser, and D. Mukherjee, editors. *Recent advances in robust statistics: theory and applications*. Springer India, New Delhi, 201 pp., 2016. (ISBN: 978-81-322-3641-2)
- S. Aivazian, P. Filzmoser, and Yu. Kharin, editors. *Computer Data Analysis and Modeling: Theoretical and Applied Stochastics. Proceedings of the Eleventh International Conference*. Belarusian State University, Minsk, 2016. (ISBN: 978-985-553-366-6)
- C. Reimann, M. Birke, A. Demetriades, P. Filzmoser, and P. O’Connor, editors. *Chemistry of Europe’s agricultural soils – Part A: Methodology and interpretation of the GEMAS data set. Geologisches Jahrbuch (Reihe B)*. Schweizerbarth, Hannover, 528 pp., 2014. (ISBN: 978-3-510-96846-6)
- C. Reimann, M. Birke, A. Demetriades, P. Filzmoser, and P. O’Connor, editors. *Chemistry of Europe’s agricultural soils – Part B: General background information and further analysis of the GEMAS data set. Geologisches Jahrbuch (Reihe B)*. Schweizerbarth, Hannover, 352 pp., 2014. (ISBN: 978-3-510-96847-3)
- S. Aivazian, P. Filzmoser, and Yu. Kharin, editors. *Computer Data Analysis and Modeling: Theoretical and Applied Stochastics. Proceedings of the Tenth International Conference, Volume 1*. Belarusian State University, Minsk, 2013. (ISBN: 978-985-533-137-2)
- S. Aivazian, P. Filzmoser, and Yu. Kharin, editors. *Computer Data Analysis and Modeling: Theoretical and Applied Stochastics. Proceedings of the Tenth International Conference, Volume 2*. Belarusian State University, Minsk, 2013. (ISBN: 978-985-533-138-2)
- S. Aivazian, P. Filzmoser, and Yu. Kharin, editors. *Computer Data Analysis and Modeling: Complex Stochastic Data and Systems. Proceedings of the Ninth International Conference, Volume 1*. Belarusian State University, Minsk, 2010. (ISBN: 978-985-476-847-2)
- S. Aivazian, P. Filzmoser, and Yu. Kharin, editors. *Computer Data Analysis and Modeling: Complex Stochastic Data and Systems. Proceedings of the Ninth International Conference, Volume 2*. Belarusian State University, Minsk, 2010. (ISBN: 978-985-476-848-9)



- S. Aivazian, P. Filzmoser, and Yu. Kharin, editors. *Computer Data Analysis and Modeling: Complex Stochastic Data and Systems. Proceedings of the Eighth International Conference, Volume 1*. Belarusian State University, Minsk, 2007. (ISBN: 978-985-476-508-2)
- S. Aivazian, P. Filzmoser, and Yu. Kharin, editors. *Computer Data Analysis and Modeling: Complex Stochastic Data and Systems. Proceedings of the Eighth International Conference, Volume 2*. Belarusian State University, Minsk, 2007. (ISBN: 978-985-476-505-1)
- S. Aivazian, P. Filzmoser, and Yu. Kharin, editors. *Computer Data Analysis and Modeling: Robustness and Computer Intensive Methods. Proceedings of the Seventh International Conference, Volume 1*. Belarusian State University, Minsk, 2004. (ISBN: 985-445-492-4)
- S. Aivazian, P. Filzmoser, and Yu. Kharin, editors. *Computer Data Analysis and Modeling: Robustness and Computer Intensive Methods. Proceedings of the Seventh International Conference, Volume 2*. Belarusian State University, Minsk, 2004. (ISBN: 985-445-492-4)
- R. Dutter, P. Filzmoser, U. Gather, and P.J. Rousseeuw, editors. *Developments in Robust Statistics. International Conference on Robust Statistics 2001*. Physica-Verlag, Heidelberg, 2003.

## BOOKS

- P. Filzmoser, K. Hron, and M. Templ. *Applied Compositional Data Analysis. With Worked Examples in R*. Springer Series in Statistics. Springer, Switzerland, 2018. ISBN: 978-3-319-96422-5.
- K. Varmuza and P. Filzmoser. *Introduction to Multivariate Statistical Analysis in Chemometrics*. CRC Press, Boca Raton, FL, 2009. ISBN: 9781420059472.
- V. Todorov and P. Filzmoser. *Multivariate Robust Statistics: Methods and Computation*. Südwestdeutscher Verlag für Hochschulschriften, Saarbrücken, Germany, 2009. ISBN: 978-3-8381-0814-8.
- H. Fritz and P. Filzmoser. *Plausibility of Databases and the Relation to Imputation Methods*. VDM Verlag Dr. Müller, Saarbrücken, Germany, 2008. ISBN: 978-3-8364-5992-1.
- C. Reimann, P. Filzmoser, R.G. Garrett, and R. Dutter. *Statistical Data Analysis Explained. Applied Environmental Statistics with R*. John Wiley & Sons, Chichester, 2008. ISBN: 978-0-470-98581-6.
- K. Adel, R. Dutter, H. Filzmoser, and P. Filzmoser. *Tiefenstrukturen der Sprache: Untersuchung regionaler Unterschiede mit statistischen Methoden*. WUV-Universitätsverlag, Wien, 1994. In German.

## ARTICLES AND PAPERS (all peer-reviewed)

**202?**

- S. Acitas, P. Filzmoser, and B. Senoglu. A new partial robust adaptive modified maximum likelihood estimator. *Chemometrics and Intelligent Laboratory Systems*. To appear.
- S. de la Rosa de Sáa, M.A. Lubiano, B. Sinova, P. Filzmoser, and M.A. Gil. Location-free robust scale estimates for fuzzy data. *IEEE Transactions on Fuzzy Systems*. To appear. 10.1109/TFUZZ.2020.2984203
- M. Drastichová and P. Filzmoser. The relationship between health outcomes and health expenditure by using compositional data analysis. *Problemy Ekorożwoju – Problems of Sustainable Development*. To appear.

- P. Filzmoser and M. Gregorich. Multivariate outlier detection in applied data analysis: global, local, compositional and cellwise outliers. *Mathematical Geosciences*. To appear. doi.org/10.1007/s11004-020-00986-5
- P. Filzmoser, K. Hron, and A. Menafoglio. Logratio approach to distributional modeling. Festschrift for Christine Thomas. Springer Verlag. To appear.
- P. Filzmoser, S. Höppner, I. Ortner, S. Serneels, and T. Verdonck. Cellwise robust M regression. *Computational Statistics & Data Analysis*. To appear. doi.org/10.1016/j.csda.2020.106944
- P. Filzmoser and K. Hron. Compositional data analysis in chemometrics, In S. Brown, R. Tauler, and B. Walczak, editors, *Comprehensive Chemometrics: Chemical and Biochemical Data Analysis*, Second Edition, Elsevier, Amsterdam, pp. 641-662, 2020.
- P. Filzmoser and K. Nordhausen. Robust linear regression for high-dimensional data: an overview. *WIREs Computational Statistics*. To appear.
- P. Filzmoser, S. Serneels, R. Maronna, and C. Croux. Robust multivariate methods in chemometrics, In S. Brown, R. Tauler, and B. Walczak, editors, *Comprehensive Chemometrics: Chemical and Biochemical Data Analysis*, Second Edition, Elsevier, Amsterdam, pp. 393-430, 2020.
- K. Hron, M. Engle, P. Filzmoser, and E. Fišerová. Weighted pivot coordinates for compositional data. *Mathematical Geosciences*. To appear. doi.org/10.1007/s11004-020-09862-5
- D. Miksova, P. Filzmoser, and M. Middleton. Imputation of values above an upper detection limit in compositional data. *Computers and Geosciences*. To appear.
- D. Miksova, C. Rieser, P. Filzmoser, S.M. Thaarup, and J. Melleton. A method to identify geochemical mineralization on linear transects. *Austrian Journal of Statistics*. To appear.
- K. Nordhausen, P. Filzmoser, and G. Fischer. Blind source separation for compositional time series. *Mathematical Geosciences*. To appear.
- I. Ortner, P. Filzmoser, and C. Croux. Robust and sparse multigroup classification by the optimal scoring approach. *Data Mining and Knowledge Discovery*, 34, 723-741, 2020.
- J. Rendlova, K. Hron, K. Facevicova, and P. Filzmoser. Robust principal component analysis for compositional tables. *Journal of Applied Statistics*. To appear.
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## 1999

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## 1998

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## 1997

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## SCIENTIFIC PRESENTATIONS

### 2020

“Robust and sparse  $k$ -means clustering in high dimension,” **Invited Presentation**, *Seminar of the Institute of Applied Statistics*, University of Linz, Linz, Austria, January 23, 2020.

“Statistical data analysis of surface geochemical data including case studies from Finland, Greenland and France,” *Online seminar of the project Upscaling deep buried geochemical exploration techniques into European business – UpDeep*, Espoo, Finland, March 26, 2020.

### 2019

“Potentials of compositional data analysis in practical applications,” **Invited lecture**, *Correspondence Analysis and Related Methods (CARME)*, Stellenbosch, South Africa, February 4, 2019.

“Robust and sparse classification in high dimensions,” **Invited lecture**, *Seminar presentation at the Institute of Statistics, Stellenbosch University*, Stellenbosch, South Africa, February 8, 2019.

“Compositional Data Analysis,” **Invited lecture**, *Short Course at the Conference of the Portuguese Society for Classification and Data Analysis*, Viseu, Portugal, April 11, 2019.

“The log-ratio approach to handle relative information.” **Keynote lecture**, *Conference of the Portuguese Society for Classification and Data Analysis*, Viseu, Portugal, April 13, 2019.

“Buzzword Data Science – an Overview of Common Methods and their Use in R,” **Invited lecture**, *Annual Meeting of the AUstrian Actuarial Association*, TU Wien, Vienna, Austria, May 23, 2019.

“Robust  $k$ -means-based clustering for high-dimensional data.” *International Conference on Robust Statistics (ICORS)*, Guayaquil, Ecuador, May 29, 2019.

“Robust and sparse estimation methods for linear and logistic regression in high dimensions.” **Keynote lecture**, *Data Science, Machine Learning and Statistics (DMS)*, Van, Turkey, June 26, 2019.

“Fraud detection in the digital music industry.” **Invited lecture**, *Benford’s Law for fraud detection. Foundations, methods and application*, Stresa, Italy, July 12, 2019.

- “Advanced methods of classification and regression.” **Invited lecture**, *Austrian Academy of Sciences AI Summer School 2019*, Ligist, Austria, August 8, 2019.
- “Outliers and compositional data.” **Keynote lecture**, *20th Annual Conference of the International Association for Mathematical Geosciences*, State College, USA, August 15, 2019.
- “Outlier detection in compositional data: from row-wise to cell-wise.” **Invited lecture**, *The 6<sup>2nd</sup> Session of the International Statistical Institute*, Kuala Lumpur, Malaysia, August 22, 2019.
- “Linear methods for regression and classification.” **Invited lecture**, *Data Science School, University of Bolzano*, Bolzano, Italy, August 27, 2019.
- “Correlation analysis for compositional environmental data.” **Invited lecture**, *Statistische Woche*, Trier, Germany, September 11, 2019.
- “Robust and sparse k-means clustering for high-dimensional data.” **Invited lecture**, *CDAM 2019 – Computer Data Analysis and Modeling*, Minsk, Belarus, Sep. 21, 2019.
- “Robust regression and classification methods for high-dimensional data.” **Invited lecture**, *Predictive Analytics Konferenz*, Vienna, Austria, October 3, 2019.
- “k-means clustering for high-dimensional data: a robust and sparse method.” *ÖSG Statistiktage*, Vienna, Austria, October 24, 2019.
- “Correlation analysis for compositional data.” **Invited lecture**, *Seminar presentation at KU Leuven*, Leuven, Belgium, November 26, 2019.

## 2018

- “Choice of influencing factors: Lasso,” **Invited lecture**, *BASF: Data Science Compact Course*, Großbräschchen, Germany, January 25, 2018.
- “Robust elastic net (logistic) regression for high dimensional data,” **Invited lecture**, *Visual Data Science and its role in Computational Medicine*, Delft, The Netherlands, February 6, 2018.
- “What statistical tool is best?” **Invited lecture**, *Drawing Insights from Complex Data*, TU Wien, Vienna, Austria, April 11, 2018.
- “Robust maximum association estimators,” **Invited lecture**, *Forecasting from Complexity*, University of Minnesota, Minneapolis, USA, April 24, 2018.
- “Estimators for robust maximum association,” **Invited lecture**, *Modern Stochastics: Theory and Applications*, Taras Shevchenko National University of Kyiv, Kiev, Ukraine, May 24, 2018.
- “Robust and sparse estimation methods for linear and logistic regression in high dimensions,” **Invited lecture**, *Seminar at the Department of Finance, Accounting and Statistics, Wirtschaftsuniversität Wien*, Vienna, Austria, June 15, 2018.
- “Robust linear and logistic regression in high dimension,” **Invited lecture**, *Seminar at the Center for Medical Statistics, Informatics, and Intelligent Systems, MedUni Wien*, Vienna, Austria, June 18, 2018.
- “Robust maximum association estimators,” **Invited lecture**, *International Conference on Robust Statistics (ICORS 2018)*, Leuven, Belgium, July 3, 2018.
- “The log-ratio methodology: Major concepts, robustness, and practical use,” **Invited lecture**, *International Conference on Computational Statistics (COMPSTAT 2018)*, Iasi, Romania, August 28, 2018.
- “The log-ratio methodology for compositional data analysis: concepts and applications,” *Statistische Woche*, Linz, Austria, September 13, 2018.
- “Robust estimators of maximum association,” **Invited lecture**, *ISOR Colloquium at University of Vienna*, Vienna, Austria, November 19, 2018.

## 2017

- “Compositional data analysis of geochemical data,” **Invited lecture**, *Geological Survey of Finland*, Espoo, Finland, April 4, 2017.
- “Correlation between variables in compositional data,” **Invited lecture**, *European Geosciences Union General Assembly*, Vienna, Austria, April 28, 2017.
- “Robust and sparse estimation methods for high dimensional linear and logistic regression,” **Invited lecture**, *Workshop devoted to the 60th birthday of Peter Rousseeuw*, Leuven, Belgium, June 2, 2017.
- “Symmetric coordinates for determining pairwise association between compositional parts,” *Workshop on Compositional Data Analysis (CoDaWork 2017)*, Abbadia San Salvatore, Italy, June 6, 2017.
- “PLS for regression and binary classification: robustness and sparsity,” **Invited lecture**, *7th International Chemometrics Research Meeting (ICRM 2017)*, Berg en Dal, The Netherlands, September 12, 2017.

## 2016

- “Robust statistics: Theory and practice”, **Invited lecture**, *Summer School System Simulation – Computational Complex Systems*, Bad Fischau, Austria, May 30, 2016.
- “Robustness in practice”, **Invited lecture**, *International Conference on Robust Statistics*, Geneva, Switzerland, July 7, 2016.
- “Sparse and robust PLS for regression and binary classification”, **Invited lecture**, *Conference on Computational Statistics (COMPSTAT 2016)*, Oviedo, Spain, August 24, 2016.
- “Opportunities of compositional data analysis for source apportionment”, **Invited lecture**, *Workshop of the CEN/TC 264/WG 44 on Source Apportionment*, Vienna, Austria, November 10, 2016.
- “Methodological concepts for source apportionment”, **Invited lecture**, *Workshop on “Evaluierung von Monitoringdaten zu POPs, POP-Kandidaten und Ersatzstoffe zur Aufklärung von Ursachen, Pfaden und Trends der Umweltbelastung*, Bundesumweltamt (UBA), Berlin, Germany, November 18, 2016.

## 2015

- “Robust statistics and R”, **Invited lecture**, *International Conference on Robust Statistics*, Kolkata, India, January 11, 2015.
- “Local multivariate outlier identification”, **Invited lecture**, *Seminar at the Palacký University*, Olomouc, Czech Republic, January 26, 2015.
- “Binary classification in high dimension using robust sparse PLS”, **Invited lecture**, *Seminar at the Department of Statistics, TU Graz*, Graz, Austria, March 20, 2015.
- “Advanced statistical methods for regression and Classification”, **Invited lecture series**, *Innovative Lecture (INNOLEC)*, *Masaryk University Brno*, Brno, Czech Republic, April 7-14, 2015.
- “Robust statistical methods in theory and practice”, **Invited lecture**, *Seminar at BASF*, Ludwigshafen, Germany, April 20, 2015.
- “Constructing weighted balances for compositional data,” *ODAM 2015 – Olomoucian Days of Applied Mathematics*, Olomouc, Czech Republic, May 21, 2015.
- “Robust coordinates for compositional data using weighted balances,” (P. Filzmoser, K. Hron, A. Gardlo, and P. de Caritat), **Invited keynote lecture**, *CoDaWork–International Workshop on Compositional Data Analysis*, L’Escala, Spain, June 2, 2015.
- “Robust binary classification for high-dimensional data”, **Invited lecture**, *Seminar at the Palacký University*, Olomouc, Czech Republic, June 15, 2015.

- “High-dimensional regression and classification with sparse partial robust M estimation,” **Invited Presentation**, *The 60<sup>th</sup> Session of the International Statistical Institute*, Rio de Janeiro, Brasil, July 27, 2015.
- “Sparse partial robust M-estimation for regression and classification,” **Invited Presentation**, *Statistische Woche*, Hamburg, Germany, September 15, 2015.
- “Robust regression in high dimension,” **Keynote lecture**, *Eighth International Workshop on Simulation*, Vienna, Austria, September 21, 2015.
- “Basic and advanced methods for statistical analysis of geochemical data using R,” **Invited Lectures**, *Workshop at Geological Survey of Finland*, Espoo, Finland, September 28–October 1, 2015.
- “Combining compositional and non-compositional information in the biplot,” **Invited Presentation**, *Seminar presentation, K.U. Leuven*, Leuven, Belgium, November 9, 2015.
- “Pairwise Mahalanobis distances in the context of local outlier detection,” **Invited Presentation**, *Current and Future Challenges in Robust Statistics*, Banff, Canada, November 17, 2015.

## 2014

- “Spline interpolation”, **Invited lecture**, *Seminar at the Palacký University*, Olomouc, Czech Republic, February 24, 2014.
- “Statistical aspects when analyzing geochemical compositions,” **Invited lecture**, *European Geosciences Union General Assembly*, Vienna, Austria, April 28, 2014.
- “Generalized additive models”, **Invited lecture**, *Seminar at the Palacký University*, Olomouc, Czech Republic, April 28, 2014.
- “Statistical analysis of compositional data,” **Invited lecture**, *Seminar at the Lisbon University of Technology*, Lisbon, Portugal, May 15, 2014.
- “Opportunities of compositional data analysis in chemometrics,” **Keynote lecture**, *Chemometrics in Analytical Chemistry*, Richmond, VA, USA, June 12, 2014.
- “Sparse partial robust M regression,” *International Conference on Robust Statistics (ICORS 2014)*, Halle, Germany, August 11, 2014.
- “Outlier detection in interval data,” *Conference on Computational Statistics (COMPSTAT 2014)*, Geneva, Switzerland, August 19, 2014.
- “Identifikation multivariater Ausreißer bei Intervalldaten,” *Workshop TU Wien – TU Dresden*, Innsbruck, Austria, August 26, 2014.
- “Identification of multivariate outliers in interval data”, **Invited lecture**, *Seminar at the Palacký University*, Olomouc, Czech Republic, September 29, 2014.
- “PCA and beyond,” **Invited lecture**, *Seminar for students of the Palacký University*, Velké Losiny, Czech Republic, November 21, 2014.

## 2013

- “Robust dimension reduction for high-dimensional data,” **Invited lecture**, *Seminar at the Palacký University*, Olomouc, Czech Republic, February 4, 2013.
- “Sparse regression and classification methods for high-dimensional data,” **Invited lecture**, *Seminar at the Vienna PhD-School of Informatics, Vienna University of Technology*, Vienna, Austria, February 7, 2013.
- “Advanced methods for regression and classification, and how to use them in R,” **Invited lecture**, *ECO Winter Workshop, Linnaeus University Kalmar*, Kalmar, Sweden, February 28, 2013.
- “Sparse and robust principal component analysis,” (P. Filzmoser, C. Croux, and H. Fritz), **Invited Presentation**, *DAGStat: Joint Statistical Meeting*, Freiburg, Germany, March 20, 2013.

- “Variable selection in regression models,” **Invited lecture**, *Seminar at the Palacký University*, Olomouc, Czech Republic, April 8, 2013.
- “Robust variable selection in linear regression with compositional explanatory variables”, **Invited lecture**, *Seminar at the University of Geneva*, Geneva, Switzerland, April 19, 2013.
- “Computational statistics: The ATC/ICD project and applications,” **Invited lecture**, *Workshop on Innovative Methods for Evidence Based Decision Making in Healthcare*, Vienna, Austria, April 23, 2013.
- “Stepwise variable selection in robust regression with compositional explanatory variables,” *ODAM 2013 – Olomoucian Days of Applied Mathematics*, Olomouc, Czech Republic, June 14, 2013.
- “Outlier detection in compositional data with structural zeros,” *ODAM 2013 – Olomoucian Days of Applied Mathematics*, Olomouc, Czech Republic, June 14, 2013.
- “Analysis of chemical data from a compositional point of view,” **Invited lecture**, *CCM VIII – Colloquium Chemiometricum Mediterraneum*, Bevagna, Italy, July 2, 2013.
- “Robust linear regression for compositional data,” *ICORS 2013 -- International Conference on Robust Statistics*, St. Petersburg, Russia, July 8, 2013.
- “A projection-pursuit method for sparse robust PCA,” **Invited lecture**, *CDAM 2013 – Computer Data Analysis and Modeling*, Minsk, Belarus, Sep. 11, 2013.
- “R tools for robust statistical analysis of high-dimensional data,” *CDAM 2013 – Computer Data Analysis and Modeling*, Minsk, Belarus, Sep. 13, 2013.
- “Linear and non-linear methods for regression and classification,” **Invited lecture**, *Workshop at the University of Debrecen*, Debrecen, Hungary, October 21, 2013.
- “Support vector machine,” **Invited lecture**, *Seminar at the Palacký University*, Olomouc, Czech Republic, November 4, 2013.
- “Robust statistics: theoretical and practical considerations,” **Invited lecture**, *Seminar for students of the Palacký University*, Dolni Morava, Czech Republic, November 16, 2013.
- “Multivariate Regression und Klassifikation mit Anwendungen aus der Chemometrie,” **Invited lecture**, *Herbstseminar der Wiener Biometrischen Sektion*, Vienna, Austria, November 21, 2013.
- “Sparse multivariate statistical methods for high-dimensional data,” **Invited lecture**, *Seminar at the University of Bergen*, Bergen, Norway, November 22, 2013.
- “Concepts of compositional data analysis,” **Invited lecture**, *Seminar at the Institute for Water Quality, Resource and Waste Management, Vienna University of Technology*, Vienna, Austria, November 25, 2013.

## 2012

- “Review of sparse methods in regression and classification with application to chemometrics,” (P. Filzmoser, M. Gschwandtner, and V. Todorov), **Invited Presentation**, *Seminar at the National Institute of Chemistry*, Ljubljana, Slovenia, February 1, 2012.
- “Identification of local multivariate outliers,” (P. Filzmoser, A. Ruiz-Gazen, and C. Thomas-Agnan), **Invited Presentation**, *Workshop on Statistical Methods for Dependent Data*, Witten, Germany, February 29, 2012.
- “Robust sparse principal component analysis,” (P. Filzmoser, C. Croux, and H. Fritz), **Invited Presentation**, *Austrian Statistical Society*, Vienna, Austria, June 4, 2012.
- “Compositional data analysis: challenges for environmental sciences,” (P. Filzmoser and K. Hron), **Invited Presentation**, *Seminar presentation, University of Venice*, Venice, Italy, June 13, 2012.
- “Sparse statistical methods: theory, applications, software,” (P. Filzmoser, M. Gschwandtner, V. Todorov), **Invited Presentation**, *ECO Summer School*, Verona, Italy, June 14, 2012.

- “Robust ultrahigh-dimensional variable selection through trimming,” (P. Filzmoser, N. Neykov, P. Neytchev), **Invited Presentation**, *International Conference on Robust Statistics*, Burlington, VT, USA, August 7, 2012.
- “Robust sparse PCA in R,” (P. Filzmoser, C. Croux, H. Fritz), **Invited Presentation**, *International Conference on Computational Statistics*, Limassol, Cyprus, August 28, 2012.
- “Compositional data analysis: Consequences for chemometrics,” **Invited lecture**, *2nd African-European Conference on Chemometrics*, Stellenbosch, South Africa, November 21, 2012.
- “Introduction to concepts of robust statistics,” **Invited lecture**, *Seminar at the Palacký University*, Olomouc, Czech Republic, November 26, 2012.
- “Regression and classification methods with application to high-dimensional data,” **Invited lecture**, *Seminar at the Palacký University*, Olomouc, Czech Republic, December 17, 2012.

## 2011

- “Discriminant analysis for compositional data and robust parameter estimation,” (P. Filzmoser, K. Hron, and M. Templ), *ODAM 2011*, Olomouc, Czech Republic, January 27, 2011.
- “Robuste multivariate Methoden für die Analyse von Kompositionsdaten,” **Invited Presentation**, *Workshop TU Dresden – TU Wien*, Dresden, Germany, March 17, 2011.
- “Robust compositional data analysis,” (P. Filzmoser, K. Hron, and M. Templ), **Invited keynote lecture**, *CoDaWork–International Workshop on Compositional Data Analysis*, Sant Feliu de Guixols, Spain, May 13, 2011.
- “Robust sparse principal component analysis based on projection-pursuit”, (P. Filzmoser, C. Croux, and H. Fritz), **Invited Presentation**, *International Conference on Robust Statistics*, Valladolid, Spain, June 28, 2011.
- “Robust statistics: Concepts, methods, applications, and computation,” **Invited Presentation**, *SEAMS-GMU 2011 International Conference on Mathematics and Its Applications*, Yogyakarta, Indonesia, July 12-15, 2011.
- “Multivariate statistics using R,” **Invited Presentation**, *Workshop for students and lecturers of the University of Salatiga*, Salatiga, Indonesia, July 11-12, 2011.
- “Robust sparse principal component analysis,” *Österreichische Statistiktage der ÖSG*, Graz, Austria, Sep. 8, 2011.
- “Sparse multivariate methods for high-dimensional data,” **Invited Presentation**, *7th International Symposium on Computer Applications and Chemometrics in Analytical Chemistry*, Sümeg, Hungary, September 19, 2011.
- “Regression and classification methods for high-dimensional data with application to chemometrics,” **Invited Presentation**, *Conferencias Statistical Robustness*, Universidad Oviedo, Oviedo, Spain, Oct. 17, 2011.
- “Analyzing high-dimensional data, with application to chemometrics,” **Invited Presentation**, *Workshop for students at the University of Valladolid*, Valladolid, Spain, Oct. 20, 2011.
- “Sparse regression and classification methods for high-dimensional data,” **Invited Presentation**, *Seminar talk at the University of Valladolid*, Valladolid, Spain, Oct. 20, 2011.
- “Finding relevant descriptors,” **Invited Presentation**, *Workshop “Molecular Descriptors”: Introduction – Theory – Applications*, Vienna, Austria, Dec. 5, 2011.

## 2010

- “Robust multivariate methods for compositional data,” **Invited Presentation**, *DAGStat 2010: Deutsche Arbeitsgemeinschaft Statistik*, Dortmund (Germany), March 24, 2010.

- “Data analysis with robust statistical methods,” (P. Filzmoser and M. Templ), **Invited Keynote Presentation**, *EDAVIS Workshop*, Vienna (Austria), May 27, 2010.
- “The “chemometrics” package in R – Application in multivariate calibration and classification,” **Invited Presentation**, *Chemometrics Workshop*, Vienna (Austria), June 28, 2010.
- “Robust multivariate methods for compositional data,” (P. Filzmoser and K. Hron), **Invited Presentation**, *Compstat 2010*, Paris (France), August 23, 2010.
- “Multivariate outlier detection with compositional data,” (P. Filzmoser and K. Hron), **Invited Presentation**, *CDAM 2010*, Minsk (Belarus), September 8, 2010.
- “Soft methods in robust statistics,” **Invited Keynote Presentation**, *SMPS 2010 (5th International Conference on Soft Methods in Probability and Statistics)*, Oviedo (Spain), September 30, 2010.
- “Robust multivariate methods for high-dimensional data,” **Invited Keynote Presentation**, *Chemometrics in Analytical Chemistry (CAC 2010)*, Antwerp (Belgium), October 20, 2010.

## 2009

- “Exploratory Data Analysis and Visualization with R,” **Invited Presentation**, *Workshop: R in Teaching and Empirical Research*, Vienna (Austria), January 16, 2009.
- “ErfolgsVision: Statistische Methodik,” **Invited Presentation**, *Workshop: Erfolgsfaktoren für Gemeinden*, Bad Zell, Austria, February 26, 2009.
- “Robust Exploratory Factor Analysis as a Reliable Statistical Tool in IS Research,” *KIMEP International Research Conference*, Almaty, Kazakhstan, April 24, 2009.
- “Robust Statistics: Concepts, Methods, Applications, and Software,” **Invited Presentation**, *COST Spring School*, Mieres, Spain, May 19, 2009.
- “Robust Factor Analysis,” **Invited Presentation**, *ICORS 2009*, Parma, Italy, June 16, 2009.
- “Statistical Practices for Environmental Monitoring,” **Invited Presentation**, *The 57<sup>th</sup> Session of the International Statistical Institute*, Durban, South Africa, August 18, 2009.
- “Applied Environmental Statistics with Focus on Exploratory Data Analysis,” **Invited Lecture**, *IASC-ERS Summer School on Computational Aspects in Environmental Statistics*, Pamporovo, Bulgaria, September 7, 2009.
- “Classification methods applied to chemical data using the R library ‘chemometrics’,” *5th International Symposium on Computer Applications and Chemometrics in Analytical Chemistry*, (P. Filzmoser, H. Gießer, B. Liebmann, K. Varmuza), Siofok, Hungary, September 29, 2009.
- “The Estimation of Missing Data in Presence of Outliers: Computational Aspects,” (P. Filzmoser, H. Fritz, K. Hron, M. Templ), **Invited Presentation**, *Second Workshop of the ERCIM Working Group on Computing & Statistics*, Limassol, Cyprus, October 29, 2009.
- “Statistische Analyse von Kompositionsdaten,” **Invited Lecture**, *Institut für Statistik*, Technische Universität Graz, Austria, November 20, 2009.

## 2008

- “Outlier Identification and Robust PCA for Compositional Data,” **Invited Presentation**, *Seminar of the Statistics Department, Belarusian State University*, Minsk (Belarus), March 2008.
- “Tools for local multivariate outlier detection,” (P. Filzmoser, A. Ruiz-Gazen, C. Thomas-Agnan, C. Reimann), **Invited Presentation**, *1st Workshop of the ERCIM Working Group on Computing and Statistics (ERCIM '08)*, Neuchâtel (Switzerland), June 2008.
- “Robust fitting of mixtures: The approach based on the Trimmed Likelihood Estimator,” *Conference of the German Classification Society (GfKl)*, Hamburg (Germany), July 2008.



- “Defining background: Which statistical method? Outliers versus extreme values,” **Invited Presentation**, *Eurosoil 2008*, Vienna (Austria), August 2008.
- “Robust statistics: a clever approach for using the useful data information,” *4th International Symposium on Computer Applications and Chemometrics in Analytical Chemistry*, Balatonalmadi (Hungary), September 2008.
- “Robust Statistical Methods for Compositional Data,” (P. Filzmoser and K. Hron), **Invited Presentation**, *ICORS 2008*, Antalya (Turkey), September 2008.
- “Robuste Statistik mit Kompositionsdaten,” **Invited Presentation**, *Seminar of the Department of Applied Statistics, Univ. für Bodenkultur*, Vienna (Austria), October 2008.

## 2007

- “Robustness for Large Data Sets: New Challenges in High Dimension,” **Invited Presentation**, *Seminar of the Department of Statistics, Univ. Toulouse I*, Toulouse (France), January 2007.
- “Robust PCA for Flat Data,” **Invited Presentation**, *International Workshop on Computational and Financial Econometrics*, Geneva (Switzerland), April 2007.
- “Robuste Schätzung am Beispiel von Hauptkomponentenanalyse,” **Invited Presentation**, *Seminar of the Department of Mathematical Stochastics*, Technical University of Dresden, Dresden (Germany), June 2007.
- “Data Quality Issues for Statistical Methods,” **Invited Presentation**, *11th Meeting of CEN/TG 230/WG 2*, Vienna (Austria), June 2007.
- “Robust Principal Components,” **Invited Presentation**, *Jubilee International Conference 60 years Institute of Mathematics and Informatics, Bulgarian Academy of Sciences*, Sofia (Bulgaria), Juli 2007.
- “Exploring High-dimensional Data with Robust Principal Components,” *8th International Conference on Computer Data Analysis and Modeling: Complex Stochastic Data and Systems*, Minsk (Belarus), September 2007.
- “Package mvoutlier for Multivariate Outlier Detection,” **Invited Presentation**, *International Workshop on Robust Statistics and R*, Banff (Canada), October 2007.
- “Robustness for Compositional Data,” **Invited Presentation**, *Seminar für Statistik*, Dortmund (Germany), November 2007.

## 2006

- “Projection Pursuit Algorithms for Robust Multivariate Methods,” **Invited Presentation**, *Robust Classification and Discrimination with High Dimensional Data*, Florence (Italy), January 2006.
- “Outliers or Extremes?” **Invited Presentation**, *Seminar of Dept. of Applied Economics*, K.U. Leuven, Leuven (Belgium), February 2006.
- “Extremwerte oder Ausreißer?” **Invited Presentation**, *Seminar of Department of Applied Statistics*, University of Linz, Linz (Austria), March 2006.
- “Outlier Detection with Application to Geochemistry,” *The R User Conference 2006*, Vienna (Austria), June 2006.
- “Outlier Identification in High Dimensions,” **Invited Presentation**, *International Conference on Robust Statistics (ICORS 2006)*, Lisbon, Portugal, July 2006.
- “Multiple Group Linear Discriminant Analysis: Robustness and Error Rate,” **Invited Presentation**, *17th Compstat Conference of the International Association for Statistical Computing*, Rome, Italy, August 2006.

- “Analyzing Multivariate Data: Methods and their Pitfalls,” **Invited Presentation**, *Arsenal Research*, Vienna, Austria, September 2006.
- “What can Robust Statistics Offer for Practice?,” **Invited Presentation**, *Geological Survey of Norway (NGU)*, Trondheim, Norway, October 2006.
- “Outlier Detection in Very High Dimension,” **Invited Presentation**, *University of Liege*, Liege, Belgium, November 2006.

## 2005

- “Statistical Analysis of Data from the MIDCC Project,” **Invited Presentation**, *Workshop MIDCC*, Mosonmagyaróvár (Hungary), February 2005.
- “Robust Multivariate Methods: The Projection Pursuit Approach,” **Invited Presentation**, *29th Annual Conference of the German Classification Society (GfKl)*, Magdeburg (Germany), March 2005.
- “The Projection Pursuit Approach for Robust Multivariate Analysis,” **Invited Presentation**, *ISDS Kolloquium*, University of Vienna, Vienna (Austria), May 2005.
- “Partial Robust M-Regression,” **Invited Presentation**, *International Conference on Robust Statistics (ICORS 2005)*, Jyväskylä, Finland, June 2005.
- “Partial Robust Regression versus Robust Partial Least Squares,” *Perspectives in Modern Statistical Inference III*, Mikulov, Czech Republic, July 2005.
- “Multivariate und robuste Statistik in der Praxis,” **Invited Presentation**, *Forum Junge Statistik, Austrian Statistical Society*, Vienna, Austria, September 2005.
- “Analyzing Data with Robust Statistical Methods,” **Invited Presentation**, *VRVis Center*, Vienna (Austria), October 2005.
- “The Package *pcaPP*: PCA by Projection Pursuit,” **Invited Presentation**, *International Workshop on Robust Statistics and R*, Treviso (Italy), October 2005.
- “Multivariate Outlier Detection with Application to Geochemistry,” **Invited Presentation**, *Seminar of the Department of Statistics, Univ. Toulouse I*, Toulouse (France), November 2005.
- “Robuste Statistik zur Erkennung multivariater Ausreißer,” **Invited Presentation**, *Wissenswertes aus der Mathematik, TU Wien*, Wien (Austria), November 2005.

## 2004

- “Statistical Analysis of Data from the MIDCC Project,” **Invited Presentation**, *Workshop MIDCC*, Mosonmagyaróvár (Hungary), February 2004.
- “Statistical Methods in Developing Quality Assessment Criteria,” **Invited Presentation**, *Workshop “What’s fishy about the Water Framework Directive?”*, Stockholm (Sweden), March 2004.
- “Konzepte der robusten Statistik mit Anwendungen,” **Invited Presentation**, *VRVis Center*, Vienna (Austria), May 2004.
- “Partial Least Squares Regression,” **Invited Presentation**, *Workshop “Robust Analysis of Large Data Sets”*, Banff (Canada), June 2004.
- “An Adaptive Method for Multivariate Outlier Detection,” **Invited Presentation**, *International Conference on Robust Statistics (ICORS 2004)*, Beijing (China), July 2004.
- “Mixture of GLMs and the Trimmed Likelihood Methodology,” (presented by N. Neykov), *Conference on Computational Statistics (COMPSTAT 2004)*, Prague (Czech Republic), August 2004.
- “A Multivariate Outlier Detection Method,” **Invited Presentation**, *Seventh International Conference on Computer Data Analysis and Modeling (Robustness and Computer Intensive Methods)*, Minsk (Belarus), September 2004.

## 2003

- “Robust factor analysis and extended models,” **Invited Presentation**, Masaryk University Brno (Czech Republic), March 2003.
- “Robuste Faktorenanalyse und erweiterte Modelle,” **Invited Presentation**, Inst. f. Ökonometrie, TU-Wien, Mai 2003.
- “Univariate and Multivariate Outlier Detection with Application to Geochemical Data,” *Workshop on Robust Modeling of Environmental Data (RMED'03)*, Vorau (Austria), July 2003.
- “Measures of Association based on Projection Pursuit,” **Invited Presentation**, *International Conference on Robust Statistics (ICORS 2003)*, Antwerp (Belgium), July 2003.
- “Robust Statistics: The Solution to the Heterogeneity Problem?,” **Keynote Lecture**, *Goldschmidt 2003*, Kurashiki (Japan), September 2003.
- “Multivariate Outlier Detection and Visualization,” *StatGIS 2003: Interfacing Geostatistics, GIS and Spatial Databases*, Pörschach (Austria), September 2003.
- “A Statistical Method for Finding Indicators of Water Quality,” *Symposium on “How to assess and monitor ecological quality in freshwaters”*, Helsinki (Finland), October 2003.
- “Maße für Assoziation basierend auf Projection Pursuit,” *Österreichische Statistiktage*, Wien (Austria), October 2003.

## 2002

- “Robust factor analysis,” **Invited Presentation**, *International Conference on Robust Statistics (ICORS 2002)*, Vancouver (Canada), May 2002.
- “Dimension reduction of the explanatory variables in (robust) multiple linear regression,” **Invited Presentation**, *XXII International Seminar on Stability Problems for Stochastic Models and Seminar on Statistical Data Analysis (SDA 2002)*, Varna (Bulgaria), May 2002.
- “Robust fitting of additive and multiplicative models,” **Invited Presentation**, Université Libre de Bruxelles (Belgium), July 2002.
- “A projection algorithm for regression with collinearity,” *8th Conference of the Federation of Classification Societies (IFCS 2002)*, Cracow (Poland), July 2002.
- “Robust estimation of the parameters in the FANOVA model,” **Invited Presentation**, Instituto Superior Tecnico Lisbon (Portugal), November 2002.

## 2001

- “Robust canonical correlation analysis,” *Contemporary Data Analysis, Theory and Methods*, Buenos Aires (Argentina), March 2001.
- “Applications of robust factor analysis,” **Invited Presentation**, *Robust Statistics Afternoon, Université Libre de Bruxelles*, Brussels (Belgium), June 2001.
- “Robust principal component regression,” **Invited Presentation**, *Sixth International Conference on Computer Data Analysis and Modeling (Robustness and Computer Intensive Methods)*, Minsk (Belarus), September 2001.
- “Prediction of censored data by robust principal component regression,” **Invited Presentation**, Charles University Prague (Czech Republic), October 2001.

## 2000

- “Robust multivariate methods in geostatistics,” *24th Annual Meeting of the Classification Society (GfKI)*, Passau (Germany), March 2000.

“Factor analysis in a robust way,” *22nd Biennial Conference of the Society for Multivariate Analysis in the Behavioural Sciences*, London (Great Britain), July 2000.

“Outlier resistant estimators for canonical correlation analysis,” *14th Compstat Conference of the International Association for Statistical Computing*, Utrecht (The Netherlands), August 2000.

“Canonical correlation analysis in a robust way,” *International Data Analysis Conference (IDA 2000)*, Innsbruck (Austria), September 2000.

## 1999

“Robust factor analysis based on criss-cross regressions,” *The 2nd SFB 475 Conference on ‘Reduction of Complexity in Multivariate Data Structures’*, Dortmund (Germany), March 1999.

“Robust factor analysis,” *Annual Conference of the Austrian Statistical Society*, Vienna (Austria), April 1999.

“Interactive clustering of functional MR images,” *5th International Conference on Functional Mapping of the Human Brain*, Düsseldorf (Germany), June 1999.

“Robust estimation in the factor analysis model,” *14th International Workshop on Statistical Modelling*, Graz (Austria), July 1999.

“Robust parameter estimation in factor analysis,” *Conference ‘20 Years Cooperation TU Dresden – TU Wien*, Ottenstein (Austria), September 1999.

“Robust multivariate methods applied to geostatistical data,” *XXème Rencontre Franco-Belge de Statisticiens*, Brussels (Belgium), November 1999.

“The FAIR estimator,” **Invited Presentation**, Universitaire Instelling Antwerpen (Belgium), December 1999.

“Modern robust statistical methods and applications,” **Invited Presentation**, Technical University of Dresden (Germany), December 1999.

## 1998

“Robust estimation of the parameters in the bilinear model,” *Annual Conference of the Austrian Statistical Society*, Linz (Austria), April 1998.

“A hierarchical clustering method for analyzing fMR images,” **Invited Presentation**, University of Vienna (Austria), May 1998.

“A robust biplot representation of two-way tables,” *VI Conference of IFCS on Data Science, Classification and Related Methods*, Rome (Italy), July 1998.

“A split and merge algorithm for analyzing functional MR images,” *15th Annual Meeting of the European Society for Magnetic Resonance in Medicine and Biology (ESMRMB)*, Geneva (Switzerland), September, 1998.

“The usage of robust multivariate methods in combination with geostatistical tools,” *Annual Conference of the International Association for Mathematical Geology*, Ischia (Italy), October 1998.

## 1997

“Generalized principal planes,” *International Symposium on Contemporary Multivariate Analysis and Its Applications*, Hong Kong (Great Britain), May 1997.

“Robust principal component and factor analysis in the geostatistical treatment of environmental data,” *The Eighth International Conference on Quantitative Methods for the Environmental Sciences*, Innsbruck (Austria), August 1997.

“Generalized principal planes,” *4th International Meeting of Multidimensional Data Analysis*, Bilbao (Spain), September 1997.

“Some multivariate statistical techniques with emphasis on extracting informative planes,” **Invited Presentation**, Universitaire Instelling Antwerpen (Belgium), September 1997.

“A robust biplot,” **Invited Presentation**, Université Libre de Bruxelles (Belgium), October 1997.

“Robust estimation of the parameters in a model with additive and multiplicative terms (bilinear model),” **Invited Presentation**, Universitaire Instelling Antwerpen (Belgium), October 1997.

## 1996

“Investigations of the language in Germany and Austria with statistical methods,” *20th Annual Meeting of the Classification Society GfKl*, Freiburg (Germany), March 1996.

“Principal planes,” *12th Symposium on Computational Statistics (COMPSTAT 1996)*, Barcelona (Spain), August 1996.

## SCIENTIFIC PRESENTATIONS (co-authored)

### 2016

“Meteorite classification by TOF-SIMS-chemometrics,” (K. Varmuza, F. Brandstätter, C. Enggrand, L. Ferrière, P. Filzmoser, M. Hilchenbach, C. Koeberl, and K. Varmuza), *27th Mass Spec Forum*, Vienna, Austria, February 24, 2016.

“An R package for robust orthogonal regression for compositional data,” (V. Todorov, K. Hruzová, K. Hron, and P. Filzmoser), *RBRAS 2016*, Salvador, Brasil, May 24, 2016.

“A pairwise log-ratio method for the identification of biomarkers,” (J. Walach, P. Filzmoser, K. Hron, and B. Walczak), *Chemometrics in Analytical Chemistry (CAC 2016)*, Barcelona, Spain, June 8, 2016.

“Robust and sparse multiclass classification by the optimal scoring approach,” (I. Hoffmann, P. Filzmoser, and C. Croux), *International Conference on Robust Statistics*, Geneva, Switzerland, July 4, 2016.

“Robust orthogonal regression for compositional data in R,” (V. Todorov, K. Hruzova, K. Hron, and P. Filzmoser), *International Conference on Robust Statistics*, Geneva, Switzerland, July 7, 2016.

“Robust multivariate analysis of interval data,” (P. Brito, P. Duarte Silva, and P. Filzmoser), *SINAPE - Simpósio Nacional de Probabilidade e Estatística*, Porto Alegre, Brasil, July 26, 2016.

“How sick is Austria? – A decision support framework for different evaluations of the burden of disease within the Austrian population based on different data sources,” (B. Glock, F. Endel, G. Endel, N. Popper, K. Sandholzer, C. Rinner, G. Duftschmid, J. Holl, M. Wagner-Pinter, C. Mert, and P. Filzmoser), *International Population Linkage Conference*, Swansea, UK, August 24, 2016.

“Evaluation of robust PCA for supervised audio outlier detection,” (S. Brodinova, T. Ortner, P. Filzmoser, M. Zaharieva, and C. Breiteneder), *Conference on Computational Statistics (COMPSTAT 2016)*, Oviedo, Spain, August 24, 2016.

“Univariate analysis of compositional data using weighted balances,” (K. Hron, P. Filzmoser, and A. Gardlo), *Conference on Computational Statistics (COMPSTAT 2016)*, Oviedo, Spain, August 26, 2016.

- “Group detection in the context of imbalanced data,” (S. Brodinova, M. Zaharieva, P. Filzmoser, T. Ortner, and C. Breiteneder), *CDAM 2016 – Computer Data Analysis and Modeling*, Minsk, Belarus, Sep. 7, 2016.
- “Robust and sparse multiclass classification by the optimal scoring approach,” (I. Hoffmann, P. Filzmoser, and C. Croux), *CDAM 2016 – Computer Data Analysis and Modeling*, Minsk, Belarus, Sep. 7, 2016.
- “Forward projection for high-dimensional data,” (T. Ortner, P. Filzmoser, S. Brodinova, M. Zaharieva, and C. Breiteneder), *CDAM 2016 – Computer Data Analysis and Modeling*, Minsk, Belarus, Sep. 7, 2016.
- “A pairwise logratio method for the identification of biomarkers,” (J. Walach, P. Filzmoser, K. Hron, and B. Walczak), *CDAM 2016 – Computer Data Analysis and Modeling*, Minsk, Belarus, Sep. 7, 2016.
- “Robust estimation approach for hazardous concentration levels using species sensitivity distribution,” (G. Monti, P. Filzmoser, and R.C. Deutsch), *CDAM 2016 – Computer Data Analysis and Modeling*, Minsk, Belarus, Sep. 8, 2016.
- “Comet and meteorite particle surface characterization by multivariate data analyses using TOF-SIMS data. Inorganics,” (K. Varmuza, I. Hoffmann, P. Filzmoser, M. Hilchenbach, O. Stenzel, F. Brandstätter, L. Ferrière, C. Köberl, C. Engrand, J. Silén, et. al.), *COSIMA Meeting*, Kalamaki (Crete), Greece, Oct. 23-28, 2016.
- “Exploring outliers in compositional data with structural zeros,” (K. Hron, M. Templ, and P. Filzmoser), *CMStatistics (ERCIM) 2016*, Sevilla, Spain, December 10, 2016.
- “Robust and sparse classification by the optimal scoring approach,” (I. Hoffmann, P. Filzmoser, and C. Croux), *CMStatistics (ERCIM) 2016*, Sevilla, Spain, December 11, 2016.
- “Guided projections for analysing the structure of high dimensional data,” (T. Ortner, C. Breiteneder, S. Brodinova, P. Filzmoser, and M. Zaharieva), *CMStatistics (ERCIM) 2016*, Sevilla, Spain, December 11, 2016.
- “A user approach to robust multivariate analysis in R,” (V. Todorov and P. Filzmoser), *CMStatistics (ERCIM) 2016*, Sevilla, Spain, December 11, 2016.

## 2015

- “Robust and sparse PLS for binary classification,” (I. Hoffmann, P. Filzmoser, and S. Serneels), **Invited lecture**, *International Conference on Robust Statistics*, Kolkata, India, January 15, 2015.
- “Correlation analysis for compositional data in coordinates,” (K. Hron, P. Kynclöva, and P. Filzmoser), *Eighth International Workshop on Simulation*, Vienna, Austria, September 22, 2015.
- “Incorporating external non-compositional variables into a biplot of compositional data,” (P. Kynclöva, P. Filzmoser, and K. Hron), *Eighth International Workshop on Simulation*, Vienna, Austria, September 22, 2015.
- “Error propagation of compositional data transformations,” (M.C. Mert, P. Filzmoser, and K. Hron), *Eighth International Workshop on Simulation*, Vienna, Austria, September 22, 2015.
- “Statistical analysis and processing of geochemical data,” (C. Reimann and P. Filzmoser), **Keynote lecture**, **Workshop of the Geochemical Survey of Finland**, Espoo, Finland, October 2, 2015.
- “Robust statistical methods for outlier detection with application to household expenditure data,” (J. Gussenbauer, P. Filzmoser, M. Templ, and O. Dupriez), *Österreichische Statistiktage*, Vienna, Austria, October 21, 2015.
- “Outlier detection in interval data,” (A.P. Duarte Silva, P. Filzmoser, and P. Brito), *Symbolic Data Analysis Workshop*, Orleans, France, November 17, 2015.

- “Distributional modeling using the logratio approach,” (K. Hron, P. Filzmoser, and A. Menafoglio), *Symbolic Data Analysis Workshop*, Orleans, France, November 18, 2015.
- “Interpretation of outliers in compositional data using the R-package mvoutlier,” (K. Hron and P. Filzmoser), *CMStatistics (ERCIM) 2015*, London, UK, December 12, 2015.
- “Robust statistical methods for outlier detection with application to household expenditure data,” (M. Templ, J. Gussenbauer, P. Filzmoser, and O. Dupriez), *CMStatistics (ERCIM) 2015*, London, UK, December 13, 2015.

## 2014

- “Exploratory data analysis for interval compositional data,” (P. Brito, P. Filzmoser, and K. Hron), *4th Workshop in Symbolic Data Analysis (SDA 2014)*, Taipei, China, June 14, 2014.
- “Characterisation of meteoritic samples with the Rosetta Cosima TOF-SIMS laboratory reference model – a covariance approach,” (O.J. Stenzel, K. Varmuza, C. Engrand, L. Ferrière, F. Brandstätter, C. Koeberl, P. Filzmoser, and M. Hilchenbach), *ACM (Asteroids, Comets, Meteors) Conference*, Helsinki, Finland, July 1, 2014.
- “The problem of missing values and rounded zeros in compositional data,” (M. Templ, K. Hron, and P. Filzmoser), *Joint Statistical Meeting (JSM 2014)*, Boston, USA, August 3, 2014.
- “Compositional regression: an overview,” (R. Tolosana-Delgado, K.G. van den Boogaart, P. Filzmoser, K. Hron and M. Templ), *16th Annual Conference of the International Association for Mathematical Geosciences (IAMG)*, New Delhi, India, October 19, 2014.
- “Statistical analysis of interval compositional data,” (P. Brito, P. Filzmoser, and K. Hron), *7th International Conference of the ERCIM WG on Computational and Methodological Statistics (ERCIM 2014)*, Pisa, Italy, Dec. 8, 2014.
- “Simplicial principal component analysis for density functions in Bayes spaces ,” (K. Hron, A. Menafoglio, M. Templ, K. Hruzova, and P. Filzmoser), *7th International Conference of the ERCIM WG on Computational and Methodological Statistics (ERCIM 2014)*, Pisa, Italy, Dec. 8, 2014.
- “PLS-DA for metabolical (compositional) data using the logratio approach,” (A. Kalivodova, K. Hron, and P. Filzmoser), *7th International Conference of the ERCIM WG on Computational and Methodological Statistics (ERCIM 2014)*, Pisa, Italy, Dec. 8, 2014.
- “Application of T-spaces in modeling compositional time series ,” (P. Kynclova, P. Filzmoser, and K. Hron), *7th International Conference of the ERCIM WG on Computational and Methodological Statistics (ERCIM 2014)*, Pisa, Italy, Dec. 8, 2014.
- “Error propagation of compositional data transformations,” (C. Mert, P. Filzmoser, and K. Hron), *7th International Conference of the ERCIM WG on Computational and Methodological Statistics (ERCIM 2014)*, Pisa, Italy, Dec. 8, 2014.
- “Blind source separation for spatial compositional data ,” (K. Nordhausen, H. Oja, P. Filzmoser, and C. Reimann), *7th International Conference of the ERCIM WG on Computational and Methodological Statistics (ERCIM 2014)*, Pisa, Italy, Dec. 8, 2014.

## 2013

- “Correlation analysis for compositional data using classical and robust methods,” (K. Hron, P. Filzmoser, and E. Fišerová), *ODAM 2013 – Olomoucian Days of Applied Mathematics*, Olomouc, Czech Republic, June 12, 2013.
- “Replacement of missing values and rounded zeros in high-dimensional compositional data with application to metabolomics,” *ODAM 2013 – Olomoucian Days of Applied Mathematics*, Olomouc, Czech Republic, June 12, 2013.

- “Principal balances with sparse PCA,” (C. Mert, P. Filzmoser, and K. Hron), *ODAM 2013 – Olomoucian Days of Applied Mathematics*, Olomouc, Czech Republic, June 12, 2013.
- “Vector autoregression for compositional time series,” (P. Kynčlová, P. Filzmoser, and K. Hron), *ODAM 2013 – Olomoucian Days of Applied Mathematics*, Olomouc, Czech Republic, June 13, 2013.
- “Fuzzy rating or fuzzy linguistic?,” (S. de la Rosa de Sáa, P. Filzmoser, M.A. Gil, and M.A. Lubiano), *ODAM 2013 – Olomoucian Days of Applied Mathematics*, Olomouc, Czech Republic, June 14, 2013.
- “Exploring compositional data with the robust compositional biplot,” (K. Hron and P. Filzmoser), *SIS 2013 - Advances in Latent Variables - Methods, Models and Applications*, Brescia, Italy, June 19, 2013.
- “Covariance-based outlier detection for compositional data with structural zeros: application to Italian Survey of Household Income and Wealth data,” (G.S. Monti, K. Hron, P. Filzmoser, and M. Templ, *SIS 2013 - Advances in Latent Variables - Methods, Models and Applications*, Brescia, Italy, June 19, 2013.
- “Multivariate robust partial M-regression,” (V. Todorov and P. Filzmoser) *ICORS 2013 – International Conference on Robust Statistics*, St. Petersburg, Russia, July 8, 2013.
- “Variable selection and its strict evaluation,” (K. Varmuza and P. Filzmoser), *Conferentia Chemometrica, CC 2013*, Sopron, Hungary, Sep. 9, 2013.
- “Empirical modeling of mass spectral features by molecular descriptors,” (K. Varmuza, M. Dehmer, and P. Filzmoser), *Conferentia Chemometrica, CC 2013*, Sopron, Hungary, Sep. 10, 2013.
- “Sparse principal balances for high-dimensional compositional data,” (C. Mert, P. Filzmoser, and K. Hron), *CDAM 2013 – Computer Data Analysis and Modeling*, Minsk, Belarus, Sep. 11, 2013.
- “Visual analytics for model selection in time series analysis,” (M. Bögl, W. Aigner, P. Filzmoser, T. Lammarsch, S. Miksch, and A. Rind), *IEEE VIS 2013*, Atlanta, GA, Oct. 18, 2013.
- “How to model compositional time series from official statistics,” (P. Kynčlová, P. Filzmoser, and K. Hron), *Österreichische Statistiktage*, Wien, Austria, Oct. 23, 2013.
- “Highly parallelized algorithms for exploratory analysis of large functional MRI datasets in R ,” (R. Boubela, K. Kalcher, W. Huf, P. Filzmoser, and E. Moser), *ERCIM Conference*, London, Great Britain, Dec. 14, 2013.
- “Robust maximum association estimators and an extension for sparsity,” (A. Alfons, C. Croux, and P. Filzmoser), *ERCIM Conference*, London, Great Britain, Dec. 15, 2013.
- “Classical and robust principal component analysis for density functions using Bayes spaces,” (K. Hruzová, K. Hron, M. Templ, P. Filzmoser, and G. Monti), *ERCIM Conference*, London, Great Britain, Dec. 15, 2013.
- “Analyzing the effect of the scientific background in “Likertizing” fuzzy rating responses to a questionnaire,” (S. de la Rosa de Saa, P. Filzmoser, and M. Lubiano), *ERCIM Conference*, London, Great Britain, Dec. 16, 2013.
- “Compositional data analysis of the resource efficiency in manufacturing,” (V. Todorov, K. Hruzová, K. Hron, and P. Filzmoser), *ERCIM Conference*, London, Great Britain, Dec. 16, 2013.
- “Sparse principal balances for high-dimensional compositional data,” (C. Mert, P. Filzmoser, and K. Hron), *ERCIM Conference*, London, Great Britain, Dec. 16, 2013.

## 2012

- “Robust estimation in high dimensional GLMs through trimming,” (N. Neykov, P. Filzmoser, and P. Neytchev), **Invited Presentation**, *Workshop on Statistical Methods for Dependent Data*, Witten, Germany, February 27, 2012.



- “Burden of disease of Diabetes Mellitus - consequences for capacity planning,” (G. Endel, N. Pfeifer, I. Wilbacher, P. Filzmoser, F. Endel, A. Eisl, W. Dorda, G. Duftschmid, W. Grossmann, E. Schober, and T. Waldhör), *9th HTAi Annual Meeting. HTA in Integrated Care for a Patient Centered System*, Bilbao, Spain, June 26, 2012.
- “Variable selection by the LASSO method,” (B. Liebmann, R. Todeschini, V. Cansoni, P. Filzmoser, and K. Varmuza), *Conference on Chemometrics in Analytical Chemistry*, Budapest, Hungary, June 28, 2012.
- “Repeated double cross validation for optimization and evaluation of empirical classifiers,” (K. Varmuza, B. Liebmann, and P. Filzmoser), *Conference on Chemometrics in Analytical Chemistry*, Budapest, Hungary, June 28, 2012.
- “Robust maximum correlation based on projection pursuit,” (A. Alfons, C. Croux, P. Filzmoser), *International Conference on Robust Statistics*, Burlington, VT, USA, August 8, 2012.
- “rrcovHD: Moving rrcov to high dimensions,” (V. Todorov, P. Filzmoser), *International Conference on Robust Statistics*, Burlington, VT, USA, August 9, 2012.
- “Evaluating the performance of a Bayesian-multiplicative treatment of zeros in compositional data sets,” (J.A. Martin-Fernandez, K. Hron, M. Templ, P. Filzmoser, J. Palarea-Albaladejo), **Invited Presentation**, *International Conference on Computational Statistics*, Limassol, Cyprus, August 28, 2012.
- “A framework for parallelized statistical analysis of fMRI data in R,” (R. Boubela, k. Kalcher, W. Huf, E. Moser, C. Windischberger, P. Filzmoser), *Statistische Woche*, Vienna, Austria, September 18, 2012.
- “Sparse and robust partial least squares regression,” (V. Todorov, P. Filzmoser), *Statistische Woche*, Vienna, Austria, September 18, 2012.
- “A projection-pursuit algorithm for robust maximum correlation estimators,” (A. Alfons, C. Croux, P. Filzmoser), *Statistische Woche*, Vienna, Austria, September 20, 2012.
- “Outlier detection by the use of the regularized MCD estimator,” (M. Gschwandtner, P. Filzmoser), *Statistische Woche*, Vienna, Austria, September 20, 2012.
- “Classical and robust correlation analysis of compositional data,” (K. Hron, P. Filzmoser), *Statistische Woche*, Vienna, Austria, September 20, 2012.
- “Robust variable selection for linear regression models with compositional data,” (F. Schroeder, A. Braumann, P. Filzmoser), *Statistische Woche*, Vienna, Austria, September 20, 2012.
- “Outlier detection in high dimension using regularization,” (M. Gschwandtner, P. Filzmoser), *International Conference on Soft Methods in Probability and Statistics*, Konstanz, Germany, October 4, 2012.
- “Robust diagnostics of fuzzy clustering results using the compositional approach,” (K. Hron, P. Filzmoser), *International Conference on Soft Methods in Probability and Statistics*, Konstanz, Germany, October 4, 2012.
- “Comparing classical and robust sparse PCA,” (V. Todorov, P. Filzmoser), *International Conference on Soft Methods in Probability and Statistics*, Konstanz, Germany, October 4, 2012.
- “Dementia and pathways of health service utilisation in Austria: A record linkage study in a country with a fragmented provider payment system,” (H. Katschnig, F. Endel, G. Endel, B. Weibold, S. Scheffel, P. Filzmoser), *22nd Alzheimer Europe Conference*, Vienna, Austria, October 4, 2012.
- “Sparse and robust partial least squares regression,” (V. Todorov, P. Filzmoser), *ERCIM Conference*, Oviedo, Spain, December 2, 2012.
- “A unified approach to classical and robust regression for compositional data,” (K. Hron, P. Filzmoser, M. Templ, G. van den Boogaart, R. Tolosana-Delgado), Oviedo, Spain, December 3, 2012.

## 2011

- “On the interpretation of orthonormal coordinates for compositional data with applications,” (K. Hron, E. Fiserova, P. Filzmoser, and M. Templ), *ODAM 2011*, Olomouc, Czech Republic, January 27, 2011.
- “Estimation of social inclusion indicators with bounded influence of incomes by tail modeling,” (M. Templ, A. Alfons, P. Filzmoser, and J. Holzer), *ODAM 2011*, Olomouc, Czech Republic, January 27, 2011.
- “Mathematical elements in robust statistics for CoDa,” (K. Hron and P. Filzmoser), **Invited Presentation**, *RSME 2011*, Avila, Spain, February 4, 2011.
- “Robust estimation of social inclusion indicators based on Pareto tail modeling,” (A. Alfons, M. Templ, and P. Filzmoser), *NTTS 2011*, Brussels, Belgium, February 24, 2011.
- “Identifying psychiatric patients’ pathways of care by record linkage after pseudonymisation: linking inpatient and outpatient data for the total population of a province of Austria,” (H. Katschnig, G. Endel, F. Endel, B. Weibold, and P. Filzmoser), *10th Workshop on Costs and Assessment in Psychiatry: Mental Health Policy and Economics*, Venice, Italy, March 25-27, 2011.
- “Imputation of complex data with R-package VIM: Traditional and new methods based on robust estimation,” (M. Templ, A. Kowarik, and P. Filzmoser), **Invited Presentation**, *UNECE Worksession on data editing*, Ljubljana, Slovenia, May 10, 2011.
- “Analysis of compositional data using robust methods. The R-package robCompositions,” (M. Templ, P. Filzmoser, and K. Hron), *CoDaWork–International Workshop on Compositional Data Analysis*, Sant Feliu de Guixols, Spain, May 12, 2011.
- “Classical and robust imputation of missing values for compositional data using balances,” (K. Hron, M. Templ, and P. Filzmoser), *CoDaWork–International Workshop on Compositional Data Analysis*, Sant Feliu de Guixols, Spain, May 13, 2011.
- “Robust variable selection with application in the social sciences,” (A. Alfons and P. Filzmoser), *Dutch/Flemish Classification Society Spring Meeting*, Antwerp, Belgium, May 13, 2011.
- “Identifying psychiatric patients’ pathways of care by record linkage after pseudonymisation: linking inpatient and outpatient data for the total population of a province in Austria,” (H. Katschnig, G. Endel, F. Endel, P. Filzmoser, and B. Weibold), *IXth ENMESH International Conference*, Ulm, Germany, June 24, 2011.
- “Robust quantile regression estimator through trimming,” (N. Neykov, P. Cizek, P. Filzmoser, and P. Neytchev), *International Conference on Robust Statistics*, Valladolid, Spain, June 27, 2011.
- “Sparse methods for robust discrimination in high dimensions”, (V. Todorov, N. Trendafilov, and P. Filzmoser), *International Conference on Robust Statistics*, Valladolid, Spain, June 27, 2011.
- “A new approach for variable selection in robust PCA, applied to anomaly detection in internet traffic flows”, (C. Pascoal, M.R. de Oliveira, P. Filzmoser, A. Pacheco, and R. Valadas), *International Conference on Robust Statistics*, Valladolid, Spain, June 28, 2011.
- “Linear regression with compositional explanatory variables using the logratio approach”, (K. Hron and P. Filzmoser), *International Conference of Probability and Statistics*, Smolenice, Slovakia, July 5, 2011.
- “Robust semi-parametric estimation of economic and social indicators”, (M. Templ, A. Alfons, and P. Filzmoser), *The 58<sup>th</sup> Session of the International Statistical Institute*, Dublin, Ireland, August 26, 2011.
- “A robust approach to regularized discriminant analysis,” (M. Gschwandtner, P. Filzmoser, C. Croux, and G. Haesbroeck), *Österreichische Statistiktage der ÖSG*, Graz, Austria, Sep. 8, 2011.

- “Sparse and robust methods for discrimination in high dimensions,” (V. Todorov and P. Filzmoser), *Österreichische Statistiktage der ÖSG*, Graz, Austria, Sep. 8, 2011.
- “A computational and methodological framework for visualisation and imputation of missing values: the R-package VIM,” (M. Templ, A. Kowarik, P. Filzmoser, and A. Alfons), *Österreichische Statistiktage der ÖSG*, Graz, Austria, Sep. 9, 2011.
- “Health service record linkage in a situation of multiple social health insurance institutions: the case of Austria”, (F. Endel, G. Endel, P. Filzmoser, B. Weibold, and H. Katschnig), *SHIP (Scottish Health Informatics Programme) biennial conference*, St. Andrews, Great Britain, September 10, 2011.
- “Identifying psychiatric patients’ pathways of care: linking service use data for psychiatric and non-psychiatric services for the total population of a province of Austria,” (H. Katschnig, G. Endel, F. Endel, P. Filzmoser, and B. Weibold), *SHIP (Scottish Health Informatics Programme) biennial conference*, St. Andrews, Great Britain, September 10, 2011.
- “Repeated double cross validation for classification models,” (K. Varmuza, P. Filzmoser, and B. Liebmann), *7th International Symposium on Computer Applications and Chemometrics in Analytical Chemistry*, Sümeg, Hungary, September 20, 2011.

## 2010

- “Implementation of advanced methodology for the estimation of social inclusion indicators,” (A. Alfons, M. Templ, and P. Filzmoser), **Invited Presentation**, *4th AMELI Meeting*, Vienna, Austria, February 23, 2010.
- “Outlier Detection for Semi-continuous Variables,” (A. Meraner, M. Templ, and P. Filzmoser), **Invited Presentation**, *4th AMELI Meeting*, Vienna, Austria, February 24, 2010.
- “Visualization of Indicators in R with Application to EUSILC,” (S. Zechner, P. Filzmoser, and M. Templ), **Invited Presentation**, *4th AMELI Meeting*, Vienna, Austria, February 24, 2010.
- “Simulation of Population Data for Complex Household Surveys,” (A. Alfons, S. Kraft, M. Templ, and P. Filzmoser), *International Conference on Indicators and Survey Methodology*, Vienna, Austria, February 25, 2010.
- “Iterative Imputation of Complex Survey Data Using Robust Methods,” (M. Templ, A. Kowarik, P. Filzmoser, and A. Alfons), *International Conference on Indicators and Survey Methodology*, Vienna, Austria, February 25, 2010.
- “Classical and Robust Simple Random Sampling for Compositional Data,” (K. Hron, P. Filzmoser, and M. Templ), *International Conference on Indicators and Survey Methodology*, Vienna, Austria, February 25, 2010.
- “How to Improve the Quality of Life in Central European Municipalities,” (R. Wieser, H. Filzmoser, P. Filzmoser, A. Alfons, W.E. Baaske, and W. Mader), *International Conference on Indicators and Survey Methodology*, Vienna, Austria, February 26, 2010.
- “IRMI: An open-source solution for imputation of complex data using robust methods,” (M. Templ, A. Kowarik, and P. Filzmoser), *European Conference on Quality in Official Statistics*, Helsinki (Finland), May 5, 2010.
- “Exploring microdata with missing information,” (A. Alfons, M. Templ, and P. Filzmoser), *EDAVIS Workshop*, Vienna (Austria), May 27, 2010.
- “Robust joint modeling of the mean and dispersion through trimming,” (N. Neykov, P. Filzmoser, and P. Neytchev), *International Conference on Robust Statistics*, Prague (Czech Republic), June 28, 2010.
- “Robust discrimination in high dimensions,” (V. Todorov and P. Filzmoser), *International Conference on Robust Statistics*, Prague (Czech Republic), June 29, 2010.

- “Robust regression for compositional data,” (K. Hron and P. Filzmoser), *International Conference on Robust Statistics*, Prague (Czech Republic), June 29, 2010.
- “The R package simFrame: An object-oriented approach towards simulation studies in statistics,” (A. Alfons, M. Templ, and P. Filzmoser), *useR! Conference*, Gaithersburg (USA), July 21, 2010.
- “robCompositions: An R-package for robust statistical analysis of compositional data,” (M. Templ, K. Hron, and P. Filzmoser), *useR! Conference*, Gaithersburg (USA), July 21, 2010.
- “Exploratory compositional data analysis using the R-package robCompositions,” (K. Hron, M. Templ and P. Filzmoser), **Invited Presentation**, *CDAM 2010*, Minsk (Belarus), September 8, 2010.
- “Contamination models in the R package simframe for statistical simulation,” (A. Alfons, M. Templ and P. Filzmoser), *CDAM 2010*, Minsk (Belarus), September 10, 2010.
- “Identifying psychiatric patients’ pathways through the health care system by record linkage after pseudonymisation,” (H. Katschnig, G. Endel, F. Endel, P. Filzmoser, and B. Weibold), *PCSI 2010*, Munich (Germany), September 17, 2010.
- “Identification of diagnose-related procedure bundles in outpatient care using statistical methods,” (N. Pfeffer, A. Eisl, F. Endel, G. Endel, P. Filzmoser, C. Scholler, A. Weisser), *PCSI 2010*, Munich (Germany), September 17, 2010.
- “Results of the project ATC-ICD,” (A. Weisser, F. Endel, G. Endel, and P. Filzmoser), *PCSI 2010*, Munich (Germany), September 17, 2010.
- “Statistical evaluation of molecular descriptors used in Quantitative-Structure-Activity Relationships,” (K. Varmuza, P. Filzmoser, and M. Dehmer), *First African-European Conference on Chemometrics*, Rabat (Morocco), September 21, 2010.
- “A comparison of robust methods for Pareto tail modeling in the case of Laeken indicators,” (A. Alfons, M. Templ, P. Filzmoser, and J. Holzer), **Invited Presentation**, *SMPS 2010 (5th International Conference on Soft Methods in Probability and Statistics)*, Oviedo (Spain), September 29, 2010.
- “Elements of robust regression for data with absolute and relative information,” (K. Hron and P. Filzmoser), **Invited Presentation**, *SMPS 2010 (5th International Conference on Soft Methods in Probability and Statistics)*, Oviedo (Spain), September 30, 2010.
- “Pareto Tail Modelling for Social Inclusion Indicators,” (A. Alfons, M. Templ, and P. Filzmoser), **Invited Presentation**, *5th AMELI Meeting*, Trier (Germany), October 4, 2010.
- “Robust multivariate methods for high-dimensional data,” **Invited Keynote Presentation**, *Chemometrics in Analytical Chemistry (CAC 2010)*, Antwerp (Belgium), October 20, 2010.
- “Random projection for dimensionality reduction,” (K. Varmuza, P. Filzmoser, M. Hilchenbach, J. Kissel, H. Krüger, and J. Silén), *Chemometrics in Analytical Chemistry (CAC 2010)*, Antwerp (Belgium), October 21, 2010.
- “Robust model selection in the social sciences,” (A. Alfons and P. Filzmoser), **Invited Presentation**, *ERCIM Conference*, London (Great Britain), December 11, 2010.

## 2009

- “Robust Imputation of Missing Values in Compositional Data Using the R-Package robCompositions,” (M. Templ, P. Filzmoser, K. Hron), *NNTS Conference*, Brussels, Belgium, February 19, 2009.
- “ErfolgsVision: Ergebnisdarstellung,” (H. Filzmoser, P. Filzmoser), **Invited Presentation**, *Workshop: Erfolgsfaktoren für Gemeinden*, Bad Zell, Austria, February 26, 2009.
- “Missing Values in Compositional Data: Imputation and Diagnostics,” (M. Templ, P. Filzmoser, K. Hron), **Invited Presentation**, *6th International Conference on Computational Management Science*, Geneva, Switzerland, May 2, 2009.

- “Robust Methods for the Estimation of Selected Laeken Indicators,” (M. Templ, J. Holzer, P. Filzmoser, A. Alfons), **Invited Presentation**, *3rd AMELI Meeting*, Olten, Switzerland, June 4, 2009.
- “State-of-the-art and Recent Developments in Visualisation of Missing Values and Indicators,” (A. Alfons, M. Templ, P. Filzmoser), **Invited Presentation**, *3rd AMELI Meeting*, Olten, Switzerland, June 5, 2009.
- “Simulation of a Population for the European Living and Income Conditions Survey,” (S. Kraft, P. Filzmoser, M. Templ), **Invited Presentation**, *3rd AMELI Meeting*, Olten, Switzerland, June 5, 2009.
- “Repeated Double Cross Validation,” (P. Filzmoser, B. Liebmann, K. Varmuza), *11th Scandinavian Symposium on Chemometrics (SSC11)*, Loen, Norway, June 10, 2009.
- “A Statistical Approach to the Reconstruction of Pleistocene Drainage of the Po River Basin (Italy),” (G. Vezzoli, K. Hron, P. Filzmoser), *ICORS 2009*, Parma, Italy, June 17, 2009.
- “Statistical Estimators based on Trimming,” (N. Neykov, P. Filzmoser, P. Neytchev), *ICORS 2009*, Parma, Italy, June 18, 2009.
- “A Robust Biplot for Compositional Data,” (K. Hron, P. Filzmoser), *ICORS 2009*, Parma, Italy, June 18, 2009.
- “Robustness for Compositional Data Using the R Package robCompositions,” (M. Templ, P. Filzmoser, K. Hron), *ICORS 2009*, Parma, Italy, June 18, 2009.
- “Robust Outlier Detection in Survey Data,” (V. Todorov, M. Templ, P. Filzmoser), *ICORS 2009*, Parma, Italy, June 18, 2009.
- “Exploring the Multivariate Structure of Missing Values Using the R Package VIM,” (M. Templ, A. Alfons, P. Filzmoser), *useR! 2009*, Rennes, France, July 8, 2009.
- “Integrating R into the InfoVis System Visplore,” (R.N. Boubela, P. Filzmoser, H. Piringer), *useR! 2009*, Rennes, France, July 8, 2009.
- “Classical and robust PLS regression compared by repeated double cross validation,” (B. Liebmann, P. Filzmoser, K. Varmuza), *5th International Symposium on Computer Applications and Chemometrics in Analytical Chemistry*, Siófok, Hungary, September 28, 2009.
- “Random projection and projection pursuit based PCA applied to chemical data,” (K. Varmuza, P. Filzmoser, B. Liebmann), *5th International Symposium on Computer Applications and Chemometrics in Analytical Chemistry*, Siófok, Hungary, September 28, 2009.
- “On the Influence of Imputation Methods on Laeken Indicators: Simulations and Recommendations,” (A. Alfons, M. Templ, P. Filzmoser), *Conference of European Statisticians*, Neuchâtel, Switzerland, October 5, 2009.
- “Imputation of item non-responses in compositional data using robust methods,” (M. Templ, P. Filzmoser, K. Hron), **Invited Presentation**, *Conference of European Statisticians*, Neuchâtel, Switzerland, October 5, 2009.
- “Outlier Detection in Survey Data Using robust Methods,” (V. Todorov, M. Templ, P. Filzmoser), **Invited Presentation**, *Conference of European Statisticians*, Neuchâtel, Switzerland, October 5, 2009.
- “Visplore and R: a symbiosis of powerful visualization and statistical processing,” (R.N. Boubela, P. Filzmoser, H. Piringer), **Invited Presentation**, *Young Statisticians Meeting*, Trieste, Italy, October 17, 2009.
- “Iterative Model-based Imputation of Complex Data,” (M. Templ, A. Kowarik, P. Filzmoser), **Invited Presentation**, *Second Workshop of the ERCIM Working Group on Computing & Statistics*, Limassol, Cyprus, October 29, 2009.

2008

- “Cluster Analysis: Data Preparation? Which Algorithm? How many Clusters?,” (M. Templ, P. Filzmoser, and C. Reimann), **Invited Presentation**, *Lifestat*, Munich (Germany), March 2008.
- “A Strategy for Estimating the Prediction Performance of Regression Models – Demonstrated on a QSPR Example,” (K. Varmuza, P. Filzmoser), *MATG/CHEM/COMP 2008*, Verbania (Italy), June 2008.
- “Visualization of missing values before imputation,” (M. Templ, P. Filzmoser), *Q2008*, Rome (Italy), July 2008.
- “Robust Outlier Detection in Survey Data,” (V. Todorov, M. Templ, and P. Filzmoser), *Compstat 2008*, Porto (Portugal), August 2008.
- “Repeated Double Cross Validation for Estimation of Prediction Errors,” (K. Varmuza and P. Filzmoser), *4th International Symposium on Computer Applications and Chemometrics in Analytical Chemistry*, Balatonalmadi (Hungary), September 2008.
- “A Robust Approach for Dealing with Missing Values in Compositional Data,” (K. Hron, M. Templ, and P. Filzmoser), *ICORS 2008*, Antalya (Turkey), September 2008.
- “Recent Developments in Robust Fitting of Mixtures,” (N. Neykov, P. Filzmoser, and P. Neytchev), *ICORS 2008*, Antalya (Turkey), September 2008.
- “An Application of Robust Variable Selection with Many Variables,” (R. Wieser, P. Filzmoser, W.E. Baaske, and W. Mader), *ICORS 2008*, Antalya (Turkey), September 2008.
- “An Object Oriented Framework for Robust Multivariate Analysis in R,” (V. Todorov and P. Filzmoser), *ICORS 2008*, Antalya (Turkey), September 2008.
- “Landwirtschaft als Erfolgsfaktor für Kommunen? – Ergebnisse aus Bevölkerungsbefragungen in Bürgerbeteiligungsprozessen,” (W.E. Baaske, P. Filzmoser, W. Mader, and R. Wieser), *ÖGA-Jahrestagung 2008*, Wien (Austria), September 2008.
- “Robuste Biplots für Kompositionsdaten,” (K. Hron and P. Filzmoser), *Workshop TU Wien/TU Dresden*, Vorau (Austria), September 2008.
- “Robuste multivariate Analyse in R,” (V. Todorov and P. Filzmoser), *Workshop TU Wien/TU Dresden*, Vorau (Austria), September 2008.
- “Analyse und Visualisierung von EU-SILC Daten in R,” (A. Alfons, S. Kraft, M. Templ, and P. Filzmoser), *Workshop TU Wien/TU Dresden*, Vorau (Austria), September, 2008.
- “Integration der Statistiksoftware R in die Visualisierungssoftware Bulk Analyzer zur interaktiven Datenanalyse,” (R. Boubela, P. Filzmoser, and H. Piringer), *Workshop TU Wien/TU Dresden*, Vorau (Austria), September, 2008.
- “Anwendung robuster Variablenselektionsverfahren zur Analyse hochdimensionaler Daten,” (R. Wieser, P. Filzmoser, W.E. Baaske, and W. Mader), *Workshop TU Wien/TU Dresden*, Vorau (Austria), September, 2008.
- “ATC → ICD: Evaluating the reliability of prognoses for ICD-10 diagnoses derived from the ATC-Code of prescription,” (A. Weisser, G. Endel, M. Gyimesi, and P. Filzmoser), *PCSI*, Porto (Portugal), October 2008.
- “Comparison of Some Linear Regression Methods - Available in R - for a QSPR Problem,” (K. Varmuza and P. Filzmoser), *4. German Conference on Chemoinformatics*, Goslar (Germany), November 2008.

## 2007

- “Exploratory Tools for Spatial Multivariate Outlier Detection,” (A. Ruiz-Gazen, C. Thomas-Agnan, P. Filzmoser, C. Reimann), *6th Spatial Econometrics and Statistics Workshop*, Dijon (France), June 2007.

- “A New Variable Selection Method Based on All Subsets Regression,” (A. Liebming, L. Seyfang, P. Filzmoser, K. Varmuza), *Scandinavian Symposium on Chemometrics*, Lappeenranta (Finland), June 2007.
- “Outlier Detection for Compositional Data and Applications to Environmetrics,” (K. Hron, P. Filzmoser), *TIES 2007*, Mikulov (Czech Republic), August 2007.
- “Visualisation of Missing Values and Robust Imputation in Environmental Surveys,” (M. Templ, P. Filzmoser), *TIES 2007*, Mikulov (Czech Republic), August 2007.
- “Robust Statistic for the One-way MANOVA,” (V. Todorov, P. Filzmoser), *TIES 2007*, Mikulov (Czech Republic), August 2007.
- “Variable Selection by All Subsets Regression and by Genetic Algorithms,” L. Seyfang, P. Filzmoser, K. Varmuza, *Conferentia Chemometrica 2007*, Budapest (Hungary), September 2007.
- “Problems and Possibilities of Cluster Analysis: Application on Geochemical Data,” (M. Templ, P. Filzmoser, C. Reimann), *ROeS Seminar 2007*, Bern (Switzerland), September 2007.
- “Exploratory Tools for Spatial Multivariate Outlier Detection,” (P. Filzmoser, C. Reimann, A. Ruiz-Gazen, C. Thomas-Agnan), **Invited Presentation**, *International Conference on Robust Statistics*, Buenos Aires (Argentina), September 2007.
- “Robust Estimation of Missing Values,” (H. Fritz, P. Filzmoser, M. Templ), **Invited Presentation**, *International Workshop on Robust Statistics and R*, Banff (Canada), October 2007.