PERSONAL INFORMATION

Marco Riani

Strada Antonio Zarotto 14, 43123 Parma, Italy
0039 902473 00393332698273
mriani@unipr.it
http://www.riani.it http://economia.unipr.it/docenti/riani
skype mriani

Sex M | Date of birth 01/04/1967 | Nationality Italian

WORK EXPERIENCE

November 2006 - Present

Full Professor of Statistics

University of Parma

- Teaching and Research in Statistics and Informatics. Teaching has concerned courses at graduate, post graduate and PhD level. Supervisor of PhD students (two of them, namely Tiziano Bellini now at HSBC bank and Francesca Torti now at the Joint Research Centre of the European Commission won the prize for the best Italian PhD thesis in statistics)

November 1999 – October 2006

Associate Professor of Statistics

University of Parma

- Teaching and Research in Statistics and Informatics

October 1998 – October 1999

Lecturer in Statistics

University of Parma

- Research in Statistics

March 1996 – September 1998

Post Doctoral Fellow in Statistics

University of Parma

- Research in Statistics

EDUCATION AND TRAINING

January 1992 – October 1995

PhD in Applied Statistics. Thesis title “Structural Analysis of Time Series”

t

Department of Statistics, University of Florence, Italy

November 1995 – October 1990

Bachelor of Science in Economics

t

University of Parma, Italy

- Final mark: 110/110 cum laude

Subjects Included:

- Quantitative Economics, Statistics, Applied Maths, Financial Maths

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2

	Replace with name of language certificate. Enter level if known.				
Spanish	B1	B1	B1	B1	B1
	Replace with name of language certificate. Enter level if known.				

Communication skills

- Excellent communication skills gained through my experience as teacher of Statistics and/or speaker in national and international meetings. Experienced at giving presentations to large audiences

Honours

- February 2006. Winner of the prize for the best Italian PhD thesis in Statistics (VII programme).

Organisational / managerial skills

Excellent organisational and prioritisation skills.
Example:

- 2014 – Now. Member of the board of the PhD programme in Statistics and Financial Mathematics, University of Milan Bicocca
- 2005 – Now. Member of the Steering Committee of ICORS (International Conference of Robust Statistics)
- 2001– Now. Scientific coordinator of the module “Advanced personal computing” of the “Marketing Management Master” organized by the University of Parma jointly with financial Italian newspaper “Il Sole 24 Ore
- 2014 – Now. Scientific coordinator of the module “Informative systems and statistics tools for market management” of the master in Agribusiness and Food Management organized by the University of Parma
- 2010 – 2014 Member of board of the PhD programme in Statistics, University of Milan Bicocca.
- 2007-2010. Vice-president of the Centre for Computing and Librarian Services of Parma University
- 2004-2007. Member of the Steering Committee of the ANSET workgroup of the Italian Statistical Society.
- 2004-2006. Member of the Steering Committee of the European Science Foundation (ESF) financed project “Statistical Analysis of Complex Data with Robust and Related Statistical Methods (SACD)
- 2001-2004. Vice-president of the Computing Laboratory Resources of the Faculty of Economics of the University of Parma.

Experience in managing statistical projects

- 2013 - 2016: Principal investigator of the research unit of Parma of the Italian Ministry of Education and Research project “Multivariate Analysis of Risk Assessment”.
- 2009 - 2012: Main principal investigator of the Italian Ministry of Education and Research project “New Robust Methods for the Analysis of Complex Data”.
- 2008 - 2011: Italian coordinator of the joint bilateral project Italy Spain “Robust methods for the classification and forecasts of multivariate data”.
- 2006 - 2008: Principal investigator of the research unit of Parma of the Italian Ministry of Education and Research project “Sensitivity Analysis and impact assessment: applications to the decisions of local municipalities”.
- 2004 - 2006: Principal investigator of the research unit of Parma of the Italian Ministry of Education and Research project “Parametric and non parametric forecasts of economic time series”.
- 2003 - 2004: Director of the financed research “Evaluation of the performance of the Italian Universities”. Italian National University Evaluation Committee.
- 2002 - 2004: Principal investigator of the research unit of Parma of the Ministry of Education and Research project “Statistical Inference on the dynamics of observed time series”
- 2000 - 2002: Principal investigator of the research unit of Parma of the Italian Ministry of Education and Research project “Linearity and non linearity in the analysis of economic time series”.

Advanced statistics teaching in meetings

Course organized by the *ICT COST Action (European Cooperation in Science and Technology)8*
2015 December. London, UK. Robust Methods in Statistics (forthcoming)

Course organized by the American Statistical Society
2001 August, Atlanta, Georgia, USA. Robust Diagnostic Data Analysis”, Continuing Education Series JSM2001,

Courses organized by the Italian Statistical Society

2004 September 20-24 “Modern Approaches to the robust analysis of multidimensional data”
2006 September 11-15 “New approaches to the analysis of multidimensional data
2010 September 20-24 “Robust multivariate methods for the analysis of Economic Data”.

Experience in the coordination/participation of EU projects

- 2004 - 2006: Member of the steering committee of the ESF financed research project "Statistical Analysis of Complex Data with Robust and Related Statistical Methods (SACD)".
- 2000 - 2002: Principal investigator of the research unit of Parma of the tender in “HelpDesk Time Series Analysis in Official Statistics”. Service supplied for the shared-cost action funded within the Information Society line of 5th Framework Program (BUSY project FP5-IST-12654 Y).
- 2009-2010 – External expert in the project Automated Monitoring Tool on External Trade, step 3 (AMT3), Joint Research Centre of the European Commission.
- 2012-2013 – External expert in the project Automated Monitoring Tool on External Trade, step 4 (AMT4), Joint Research Centre of the European Commission.

Released software

- 2012 – Now. Coauthor of the Matlab toolbox FSDA™. Software owned jointly by the University of Parma and the Joint Research Centre of the European Commission (Riani, Perrotta, and Torti 2012 Chemometrics and Intelligent Laboratory Systems, Riani, Perrotta and Cerioli, 2015, Journal of Statistical Software). This new software library, which extends MATLAB® and statistics toolbox® to support a robust and efficient analysis of complex datasets, affected by different sources of heterogeneity, is freely downloadable from the websites http://www.riani.it/MATLAB and http://fsda.jrc.ec.europa.eu. The FSDA toolbox is protected by a European Union Public Licence (EUPL).
- 2001 – 2010 “Fwd library”, (with K. Konis from Insightful) SPLUS Gui software which implements the routines described in the book: Robust Diagnostic Regression Analysis, by Anthony C. Atkinson and Marco Riani. The software can be downloaded from the following web address: http://www.riani.it/ar.

Member of the scientific committee of international conferences

- ERCIM'14 – Member of the scientific committee of the 7th International Conference of the ERCIM WG on COMPUTING & STATISTICS, Pisa, Italy, December, 2014.
- SIS2014 – Member of the scientific committee of the XLVII Meeting of the Italian Statistical Society, Cagliari, June 2014
- ERCIM'13 – Member or the scientific committee of the 6th International Conference of the ERCIM WG on COMPUTING & STATISTICS. London, Italy, December, 2013.
- ERCIM'12 – Co-chair del 5th International Conference of the ERCIM WG on COMPUTING & STATISTICS, Oviedo, Spain, December 2012.
- CFE'11 – Member of the scientific committee of the “5th International Conference on Computational and Financial Econometrics”, London, UK, December 2011.
- CLADAG 2011 – Member of the scientific committee of the meeting CLADAG 2011, University of Pavia, Italy, September 2011.
- CFE'10 – Member of the scientific committee of the meeting “4th International Conference on Computational and Financial Econometrics”, London, UK, December 2010.
- CFE'09 – Member of the scientific committee of the meeting “3rd International Conference on Computational and Financial Econometrics”, Limassol, Cyprus, October 2009.
- ICORS2009 – Chairman of the scientific committee of the “International Conference on Robust Statistics”, Parma, Italy, June 2009.
- CFE'08 – Member of the scientific committee of the meeting “2nd International Workshop on Computational and Financial Econometrics, Neuchâtel, Switzerland, June 2008.
- ICORS2008 – Member of the scientific committee of the meeting “International Conference on Robust Statistics”, Antalya, Turkey, September 2008.
- CFE'07 – Member of the scientific committee of the meeting “International Workshop on Computational and Financial Econometrics", Genève, Switzerland, April, 2007.
- ROBCLA 2006 – President of the scientific committee of the meeting “Robust Classification and Discrimination with High Dimensional Data”, Florence, Italy, January, 2006.
- COMPSTAT 2006 – Member of the Scientific Committee of the Satellite meeting of COMPSTAT 2006 - 8th Workshop of the Ercim Working Group on Matrix Computations and Statistics. Salerno, Italy, September 2006.

- SER 2006 – Member of the Scientific Committee of the meeting “Time series analysis 2006”, Rome, Italy, April 2006
- CLADAG 2005 – Member of the Scientific Committee of the meeting “Classification and Data Analysis Group”, Parma, Italy, June 2005.
- O.U.T.C.O.M.E.S. 2005 – Member of the Scientific Committee of the meeting “O.U.T.C.O.M.E.S. 2005 Methods and models for the evaluation of the university system”, Foggia, Italy, September 2005.

Invited talks in international conferences

- **September 2015** – CLADAG 2015, Cagliari, Italy (forthcoming)
- **July 2015 –** IFCS 2015 (plenary talk), Bologna, Italy (forthcoming)
- **January 2015** – ICORS 2015, Kolkata, India
- **December 2014** – ERCIM, Pisa, Italy
- **November 2014** – Jubilee Meeting on November 6-7, of the Dutch/Flemish classification society (VOC).
- **December 2013 –** Workshop on algorithms for outlier/regressor selection. Sponsored by Nuffield College and Institute of Economic Modelling, Oxford, UK.
- **September 2013** – CLADAG 2013, 9th Scientific Meeting of the Classification and Data Analysis Group of the Italian Statistical Society. Modena, IItaly.
- **March 2013** – Robust Statistics meets Geomatics and Computer Vision, International Centre for Mechanical Sciences, Udine, Italy
- **September 2012** – Workshop “New robust methods for the analysis of complex data”, Benevento, Italy.
- **June 2012** – 46th scientific meeting of the Italian statistical society, Rome, Italy.
- **December 2011** – ERCIM, London, UK
- **September 2011** – SCO2011, 7th Conference on Statistical Computation and Complex Systems, Padua, Italy.
- **June 2011** – ICORS 2011, Valladolid, Spain
- **May 2011** – Spring meeting of the Dutch/Flemish classification society (VOC). Antwerp, Belgium.
- **May 2010** – International Workshop on the Scientific Approach to the Acheiropoietos Images. Rome, Italy.
- **June 2010** – ICORS 2010, Prague, Czeck Republic.
- **September 2009** – Intermediate Meeting of the Italian Statistical Society, Pescara. Italy (rplenary lecture).
- **September 2008** – ICORS 2008, Antalya, Turkey.
- **August 2008 –** COMPSTAT 2008, Porto, Portugal.
- **June 2008 –** XLIV Meeting of the Italian Statistical Society, Arcavata di Rende Cosenza, Italy.
- **September 2007** – 8th International Conference Computer Data Analysis and Modeling, Minsk: Belarusian State University, Russian Federation.
- **September 2007** – CLADAG 2007, Macerata, Italy.
- **September 2007** – ICORS 2007, Buenos Aires, Argentina.
- **August 2007** – ISI 2007, Lisbon, Portugal.
- **June 2007** – 29th Int. Conf. on Information Technology Interfaces, CAVTAT, Croatia.
- **October 2006** – *Workshop on Robustness and Statistical Inference in Honor of Victor Yohai*, Madrid, Spain.
- **August 2006** – 7th Prague Symposium on Asymptotic Statistics, Czech Republic.
- **July 2006** – ICORS 2006, Lisbon, Portugal.
- **June 2005** – ICORS 2005, Jyväskylä, Finland.
- **April 2005** – *DREAM* (Diagnostics, Robustness, Exploration and Modelling) meeting, Milton Keynes, England.
- **April 2004** – *Computational Management Science, Conference and Workshop on Computational Econometrics and Statistics*. Neuchâtel, Switzerland.
- **August 2002** –*COMPSTAT 2002*, 15th Symposium of IASC, Berlin, Germany.
- **June 2002** – *XLI Meeting of the Italian Statistical Society*, Milan, Italy.
- **September 2000** –*4th International Conference on Chemometrics and Environmetrics*, Las Vegas, Nevada, USA.
- **August 2000** –*Technometrics invited paper, Joint ASA & Biometrics Statistical Meetings*, Indianapolis, USA.
- **June 2000** – *XXXIX meeting of the Italian Statistical Society*, Florence.
- **April 2000** – *XL Meeting of the Italian Statistical Society*, Florence.
- **July 1999** – *Classification and data analysis group meeting (CALDAG),* Rome**.**

- **November 1998** – *Workshop* in *Robust Analysis of Multivariate Data: Outlier Detection, Cluster Identification and Data Mining,* University of Braunschweig, Germany.
- **October 1998** *Conference on Seasonal Adjustment Methods***,** Bucarest**.**
- **June 1997** – *VIII International Symposium on Applied Stochastic Models and Data Analysis: The Ins and Outs of Solving Real Problems*, Naples.
- **May 1996** – *XXXVII meeting of the Italian Statistical Society***,** Rimini**.**

Editorial activity

Associate editor

- January 2010 – now Associate Editor of the international Journal Metron
- September 2011 – NOW Associate Editor of the Springer Verlag Journal Statistical Methods and Applications. ***http://www.springerlink.com/content/1618-2510/.***
- Settembre 2011 – September 2014 Member of the board Unitext – Springer Verlag Italy, series of Statistics and Applied Probability ***http://www.springer.com/series/1380***

Guest editor

- 2006 – guest editor (jointly with A. Cerioli e B. Chiandotto) of the special issue of the Springer Journal STATISTICAL METHODS AND APPLICATIONS ***http://www.springerlink.com/content/1618-2510/*** on Robust Multivariate Analysis and Classification.
- 2010 – guest editor (jointly with A. Cerioli and P. Rousseeuw) of the special issue of the Springer Verlag Journal , ADVANCES IN DATA ANALYSIS AND CLASSIFICATION ***http://www.springer.com/statistics/statistical+theory+and+methods/journal/11634*** on Robust Methods for Classification and Data Analysis.
- 2015 – guest editor (jointly with D. Cocchi e M. Alfò) of the special issue of the Journal STATISTICA ***http://rivista-statistica.unibo.it/*** on Selected papers in statistical methods: the Italian Statistical Society at 2014.

Computer skills

Proficient with the following programs: Matlab, Gauss and R. Proficient of Microsoft Office™ tools (I wrote several books about the use of Excel, Word, Power Point and Access and Front Page) see http://www.riani.it/. Discrete knowledge of C and C++

Other skills

Play chess (ELO score around 2000)

Driving licence

A, B

ADDITIONAL INFORMATION

Publications in International Journals (Years 2000- 2015)

SALINI S. CERIOLI A., LAURINI F. AND RIANI M. (2015) Reliable robust regression diagnostics, *INTERNATIONAL STATISTICAL REVIEW*, 1–29 doi:10.1111/insr.12103 (in press)

RIANI M., CERIOLI A., PERROTTA D. (2015). The Forward Search for Very Large Datasets. *JOURNAL OF STATISTICAL SOFTWARE*, Vol. 67, Code Snippet 1

RIANI M., CERIOLI A., ATKINSON A.C., PERROTTA D. (2014). Monitoring Robust Regression. *ELECTRONIC JOURNAL OF STATISTICS*, Vol. 8, pp. 642–673 DOI:10.1214/14-EJS897

CERIOLI A., FARCOMENI A. RIANI M., (2014). Strong consistency and robustness of the Forward Search estimator of multivariate location and scatter, J*OURNAL OF MULTIVARIATE ANALYSIS*, http://dx.doi.org/10.1016/j.jmva.2013.12.010. Vol. 126 pp. 167–183.

RIANI M., CERIOLI A., TORTI F. (2014). On consistency factors and efficiency of robust S-estimators *TEST*, Volume 23, Issue 2, pp 356-387. DOI: 10.1007/s11749-014-0357-7.

RIANI M., ATKINSON A.C., PERROTTA D. (2014). A Parametric Framework for the Comparison of Methods of Very Robust Regression, *STATISTICAL SCIENCE*, Vol. 29, No. 1, pp. 128–143.

CERIOLI, A., FARCOMENI A., RIANI M. (2013). Robust distances for outlier-free goodness-of-fit testing, *COMPUTATIONAL STATISTICS AND DATA ANALYSIS*, Special issue on robust analysis of complex data, Edited by Christophe Croux, Elvezio Ronchetti, Matías Salibián-Barrera and Stefan Van Aelst doi: http://dx.doi.org/10.1016/j.csda.2012.03.008, vol. 65, pp. 29-45

RIANI, M., PERROTTA D., TORTI F. (2012). FSDA: A MATLAB toolbox for robust analysis and interactive data exploration, *CHEMOMETRICS AND INTELLIGENT LABORATORY SYSTEMS*, 116, p. 17-32, doi:10.1016/j.chemolab.2012.03.017,

RIANI, M., ATKINSON A.C., FANTI G., CROSILLA F. (2012). Regression analysis with partially labelled regressors: carbon dating of the Shroud of Turin, *STATISTICS AND COMPUTING*, p. 17-32, doi: 10.1007/s11222-012-9329-

ATKINSON A.C., RIANI M. (2012). Discussion on the paper by Spiegelhalter, Sherlaw-Johnson, Bardsley, Blunt, Wood and Grigg. *JOURNAL OF THE ROYAL STATISTICAL SOCIETY. SERIES A. STATISTICS IN SOCIETY*, vol. 175, ISSN: 0964-1998

TORTI F., PERROTTA D., ATKINSON A.C., RIANI M. (2012). Benchmark testing of algorithms for very robust regression: FS, LMS and LTS. *COMPUTATIONAL STATISTICS & DATA ANALYSIS*, Volume 56, Issue 11, ISSN: 0167-9473, doi: 10.1016/j.csda.2012.02.003

BELLINI T., RIANI M. (2012). Robust Analysis of Default Intensity. *COMPUTATIONAL STATISTICS & DATA ANALYSIS*, ISSN: 0167-9473, doi: 10.1016/j.csda.2011.03.007

ATKINSON A.C., RIANI M., A. CERIOLI (2010). The forward search: Theory and data analysis, *JOURNAL OF THE KOREAN STATISTICAL SOCIETY*, vol. 39; p. 117-134, ISSN: 1226-3192, doi: 10.1016/j.jkss.2010.02.007

RIANI M., A.C. ATKINSON (2010). Robust model selection with flexible trimming. *COMPUTATIONAL STATISTICS & DATA ANALYSIS*, vol. 54; p. 3300-3312, ISSN: 0167-9473, doi: 10.1016/j.csda.2010.03.007

CERIOLI A, RIANI M., ATKINSON A.C (2009). Controlling the size of multivariate outlier tests with the MCD estimator of scatter. *STATISTICS AND COMPUTING*, vol. 19; p. 201-221, ISSN: 0960-3174, doi: 10.1007/s11222-008-9096-5

PERROTTA D, RIANI M., TORTI F (2009). New robust dynamic plots for regression mixture detection. *ADVANCES IN DATA ANALYSIS AND CLASSIFICATION*; p. 263-279, ISSN: 1862-5347, doi: 10.1007/s11634-009-0050-y

PROIETTI T., RIANI M. (2009). Seasonal adjustment and transformations. *JOURNAL OF TIME SERIES ANALYSIS*, vol. 30; p. 47-69, ISSN: 0143-9782, doi: 10.1111/j.1467-9892.2008.00600.x

RIANI M. (2009). Robust Transformations in Univariate and Multivariate Time Series. *ECONOMETRIC REVIEWS*, vol. 28; p. 262-278, ISSN: 0747-4938, doi: 10.1080/07474930802388074

RIANI M., ATKINSON A.C, CERIOLI A (2009). Finding an unknown number of multivariate outliers. *JOURNAL OF THE ROYAL STATISTICAL SOCIETY SERIES B STATISTICAL METHODOLOGY,* vol. 71; p. 201-221, ISSN: 1369-7412, doi: 10.1111/j.1467-9868.2008.00692.x

ATKINSON A.C., RIANI M. (2008). A robust and diagnostic information criterion for selecting regression models. *JOURNAL OF THE JAPAN STATISTICAL SOCIETY,* vol. 38; p. 3-14, ISSN: 1882-2754 447-458, Heidelberg: Physica-Verlag, ISBN/ISSN: 9783790820836, doi: 10.1007/978-3-7908-2084-3_37

ATKINSON A.C., RIANI M. (2007). BUILDING REGRESSION MODELS WITH THE FORWARD SEARCH. *JOURNAL OF COMPUTING AND INFORMATION TECHNOLOGY. CIT*, vol. 4; p. 287-294, ISSN: 1330-1136, doi: 10.2498/cit.1001135

ATKINSON A.C., RIANI M. (2007). Exploratory Tools for Clustering Multivariate Data. *COMPUTATIONAL STATISTICS & DATA ANALYSIS*, vol. 52; p. 272-285, ISSN: 0167-9473, doi:

10.1016/j.csda.2006.12.034

RIANI M., ATKINSON A.C. (2007). Fast calibrations of the forward search for testing multiple outliers in regression. *ADVANCES IN DATA ANALYSIS AND CLASSIFICATION*, vol. 1; p. 123-141, ISSN: 1862-5347, doi: 10.1007/s11634-007-0007-y

ATKINSON A.C., RIANI M. (2006). Distribution Theory and Simulations for Tests of Outliers in Regression. *JOURNAL OF COMPUTATIONAL AND GRAPHICAL STATISTICS*, vol. 15; p. 460-476, ISSN: 1061-8600, doi: 10.1198/106186006X113593

ATKINSON A.C., RIANI M. (2004). The forward search and data visualization. *COMPUTATIONAL STATISTICS*, vol. 19; p. 29-54, ISSN: 0943-4062

RIANI M. (2004). Extensions of the Forward Search to Time Series. *STUDIES IN NONLINEAR DYNAMICS AND ECONOMETRICS*, vol. 8; p. 1-23, ISSN: 1081-1826

RIANI M. (2004). Robust multivariate transformations to normality, constructed variables and likelihood ratio tests. *STATISTICAL METHODS & APPLICATIONS*, vol. 13; p. 179-196, ISSN: 1618-2510, doi: 10.1007/s10260-004-0095-1

ATKINSON A.C., RIANI M. (2002). Forward search added-variable t-tests and the effect of masked outliers on model selection. *BIOMETRIKA*, vol. 89; p. 939-946, ISSN: 0006-3444

ATKINSON A.C., RIANI M. (2002). Tests in the Fan Plot for Robust, Diagnostic Transformations in Regression. *CHEMOMETRICS AND INTELLIGENT LABORATORY SYSTEMS*, vol. 60; p. 87-100, ISSN: 0169-7439

RIANI M., ATKINSON A.C. (2001). A Unified Approach to Outliers, Influence, and Transformations in Discriminant Analysis. *JOURNAL OF COMPUTATIONAL AND GRAPHICAL STATISTICS*, vol. 10; p. 513-544, ISSN: 1061-8600

RIANI M, ATKINSON A.C. (2000). Robust Diagnostic Data Analysis: Transformations in Regression. *TECHNOMETRICS*, vol. 42, p. 384-394, ISSN: 0040-1706

Books (Years 2000- 2015)

ATKINSON A.C., RIANI M., CERIOLI A. (2004). Exploring Multivariate Data with the Forward Search. NEW YORK: Springer-Verlag, p. 1-621, ISBN: 0387408525

ATKINSON A.C., RIANI M. (2000). Robust Diagnostic Regression Analysis. NEW YORK: SPRINGER VERLAG, p. 1-330