

Antonio Punzo, Ph.D.¹

Department of Economics and Business, University of Catania, Corso Italia 55, 95129, Catania, Italy.

Nationality: Italian

Telephone (Work): +39 0957537640

E-mail: antonio.punzo@unict.it

Web: <http://www.economia.unict.it/punzo/>

Present Position

- *Associate Professor of Statistics*, University of Catania, Department of Economics and Business. October 2015–Present.
- Qualification to Full Professorship in 13/D1 (Statistics) since March 2017.

Education and Past Positions

11/2010–9/2015 *Assistant Professor of Statistics*, University of Catania, Department of Economics and Business.

2/2013–7/2013 *Visiting Professor of Statistics*, University of Guelph (Canada, Ontario), Department of Mathematics & Statistics (Director: Prof. Paul D. McNicholas).

6/2008–6/2010 *Research Fellow of Statistics*, University of Catania.

4/2008 *Ph.D. in Methodological and Applied Statistics*, University of Milano-Bicocca.

6/2004 *Laurea (cum laude) in Statistical and Actuarial Sciences*, University of Calabria.

Membership of Academic Societies

- Classification and Data Analysis Group (CLADAG), since 2007.
- Società Italiana di Statistica (SIS), since 2009.
- Statistical Society of Canada (SSC), in 2013.

(Main) Research Interests

Mixture Models, Hidden Markov Models, Model-Based Clustering and Classification, Heavy-tailed Distributions, Serial Dependence, Item Response Theory, Nonparametric Techniques, Multiple Testing Procedures, Bias Reduction Techniques. With respect to these topics, based on the SCOPUS database, he is author of several articles (with 531 citations and 14 as *h*-index) published on top scientific journals (see the table below for details).

¹Last update: 3 September 2019.

Journals ^a (in alphabetical order) + Springer Books ^a	# of papers	Impact Factor ^b	# of citations ^a	ASN (I3/D1)	VQR
Advances in Data Analysis and Classification	1	1.653	26		B
American Statistician	2	4.302	10	A	B
AStA-Advances in Statistical Analysis	1	0.643	5		B
Biometrical Journal	1	1.114	23	A	B
Canadian Journal of Statistics	1	0.509	6	A	B
Communications in Statistics - Simulation and Computation	1	0.501	8		C
Communications in Statistics - Theory and Methods	1	0.353	1		C
Computational Statistics	2	0.828	33		C
Computational Statistics & Data Analysis	3	1.181	41	A	B
Demographic Research	1	1.478	0	A	B
Electronic Journal of Applied Statistical Analysis	1		2		D
Insurance: Mathematics and Economics	1	1.265	1	A	B
Iranian Journal of Science and Technology. Transactions A: Science	1	0.757	0		
Journal of Applied Statistics	3	0.699	5		C
Journal of Classification	4	1.214	47		C
Journal of Computational and Graphical Statistics	1	1.790	11	A	A
Journal of Financial Econometrics	1	1.686	0	A	A
Journal of Statistical Computation and Simulation	1	0.869	13		C
Journal of Statistical Software	5	22.737	32	A	A
Journal of the Korean Statistical Society	1	0.734	7		C
Journal of the Royal Statistical Society: Series A	1	2.473	0	A	A
Journal of Time Series Analysis	1	0.826	13	A	B
Lifetime Data Analysis	1	1.000	2	A	B
Mathematical Population Studies	1	0.269	5		D
Methodology and Computing in Applied Probability	1	0.885	11		B
METRON	1		2		C
Psicológica	1	0.556	5		
Quality & Quantity	1	1.072	1	A	C
Sociological Methods & Research	1	3.625	4	A	A
Statistical Methods & Applications	2	0.932	27	A	C
Statistical Modelling	1	1.429	17		B
Statistical Papers	2	1.024	21	A	B
Statistics in Medicine	1	1.932	0	A	A
Stochastic Environmental Research and Risk Assessment	1	2.668	4	A	A
Chapters in Springer Books	11	0.000	50		
Total	60	168.440	433	27	28

^a Scopus database

^b Thomson Reuters 2017

External Service Contributions

Editorial Activities

- Associate Editor for: *Biometrical Journal*
- Editorial Board Member for: *Statistica Applicata - Italian Journal of Applied Statistics*

Guest Editorships

- *Statistica Applicata - Italian Journal of Applied Statistics*, Volume 27, number 1, 2015: Special Issue on “Statistical Applications in Health Related Quality of Life”, Co-Editors: Lucio Bertoli-Barsotti, Mounir Mesbah, and Antonio Punzo.

Ph.D. Activities

- “External Reviewer” for the Ph.D. Thesis in Economics (Quantitative Methods for Economics) entitled “Model-based clustering: handling missing data, projection pursuit, and anomaly detection”, Ph.D. in Economics, University of Perugia, Department of Economics, 2017.

(Main) Refereeing Activities

Scientific Committee Activities

Member of the Scientific Committee for:

- International Scientific Meeting: “Cladag 2019”, Cassino, September 11–13, 2019.

Publisher (in alphabetical order)	Journal	
Elsevier	Applied Mathematics and Computation	
	Computational Statistics & Data Analysis	
	European Journal of Operational Research	
	International Journal of Forecasting	
	Journal of Computational and Applied Mathematics	
	Journal of King Saud University - Computer and Information Sciences	
	Journal of Multivariate Analysis	
	Journal of Statistical Planning and Inference	
	Pattern Recognition	
	Statistics & Probability Letters	
IEEE Computer Society	IEEE Access	
	IEEE Transactions on Pattern Analysis and Machine Intelligence	
SAGE	Statistical Methods in Medical Research	
Springer	Advances in Data Analysis and Classification	
	ASTA Advances in Statistical Analysis	
	Behavior Research Methods	
	Computational Statistics	
	Data Mining and Knowledge Discovery	
	Journal of Classification	
	METRON	
	Quality & Quantity	
	Statistical Methods & Applications	
	Statistics and Computing	
	Taylor & Francis	Communications in Statistics - Simulation and Computation
		Communications in Statistics - Theory and Methods
		Journal of Applied Statistics
Journal of Computational and Graphical Statistics		
Journal of Experimental & Theoretical Artificial Intelligence		
Journal of Statistical Computation and Simulation		
Journal of the American Statistical Association		
Technometrics		
Wiley Online Library	Biometrical Journal	
	Canadian Journal of Statistics	
	Environmetrics	
	Journal of the Royal Statistical Society - Series A	
	Journal of the Royal Statistical Society - Series C	
	Stat	
	Statistical Analysis and Data Mining	
	Statistics in Medicine	
WIREs Data Mining and Knowledge Discovery		

Organizing Committee Activities

Member of the Organizing Committee for:

- International Workshop: “MBC² - Workshop on Model-Based Clustering and Classification”, Catania, September 5–7, 2018.
- International Scientific Meeting: “54ma Riunione Scientifica della SIEDS (Società Italiana di Economia Demografia e Statistica)”, Catania, May 25–26, 2017.
- International Workshop: “MBC² - Workshop on Model-Based Clustering and Classification”, Catania, September 5–7, 2016.
- International Workshop: “MBC² - Workshop on Model-Based Clustering and Classification”, Catania, September 3–5, 2014.
- International Workshop: “MBC² - Workshop on Model-Based Clustering and Classification”, Catania, September 6–7, 2012.
- International Scientific Meeting: “Cladag 2009”, Catania, September 9–11, 2009.

Organization of Sessions

- Title of the Specialized Session: *Clustering of high-dimensional data*, “Statistics and Data Science: new challenges, new generations (SIS2017 - Intermediate Scientific Meeting of the ITALIAN STATISTICAL SOCIETY)”, University of Florence, Italy, June 28–30, 2017
- Title of the Session: *Robust clustering with mixtures*, “7th International Conference of the ERCIM WG on Computational and Methodological Statistics (ERCIM 2014)”, University of Pisa, Italy, December 6–8, 2014
- Title of the Session: *Model-Based Clustering*, “9th Scientific Meeting of the Classification and Data Analysis Group (CLADAG 2013) of the Italian Statistical Society”, University of Modena and Reggio Emilia, Modena, Italy, September 18–20, 2013

Discussant of Sessions

- Title of the Specialized Session: *Clustering of high-dimensional data*, “Statistics and Data Science: new challenges, new generations (SIS2017 - Intermediate Scientific Meeting of the ITALIAN STATISTICAL SOCIETY)”, University of Florence, Italy, June 28–30, 2017

Chair of Sessions

- Title of the Session: *New proposals in Clustering Methods*, “11th Scientific Meeting of the CLAssification and Data Analysis Group of the Italian Statistical Society (CLADAG 2017)”, University of Milano-Bicocca, Italy, September 13–15, 2017

Research Projects

- Member of the Granted Project FIR 2017 (University of Catania): *Academic Analytics per la costruzione di indicatori di performance* (Coordinator: Prof. A. Mazza).
- Member of the Granted Project FIR 2014 (University of Catania): *Mixture models with covariates: methods and applications for prediction of the corporate financial distress in EU countries* (Principal Investigator: Prof. S. Ingrassia).
- Member of the Granted Project FIRB 2012: *Modelli mistura e a variabili latenti per l’inferenza causale e l’analisi di dati socio-economici* (Principal Investigator: Prof. F. Bartolucci).

Presentations

In Seminars

- *Model-Based Clustering via the Cluster-Weighted Approach*, Dipartimento di Scienze Economiche e Statistiche, University of Salerno, Italy, March 19, 2014.
- *Closed Likelihood-Ratio Testing Procedures to Assess Similarity of Covariance Matrices*, Department of Mathematics & Statistics, University of Guelph, Guelph, Ontario, Canada, March 22, 2013.

In Invited Sessions

- *On the use of the contaminated normal distribution in model-based clustering*, “Statistical Society of Canada 2019 Annual Meeting (SSC 2019)”, University of Calgary, Calgary, Alberta, Canada, May 26–29, 2019
- *Model-based Clustering with Fixed and Random Covariates in R* , “1st CRoNoS Workshop on Multivariate Data and Software”, Poseidonia Beach Hotel, Limassol, Cyprus, April 3–5, 2018

- *Fitting Cluster-Weighted Models in R*, “11th Scientific Meeting of the CLAssification and Data Analysis Group of the Italian Statistical Society (CLADAG 2017)”, University of Milano-Bicocca, Italy, September 13–15, 2017
- *On the use of the contaminated Gaussian distribution in hidden Markov models for longitudinal data*, “9th International Conference of the ERCIM WG on Computational and Methodological Statistics (ERCIM 2016)”, University of Seville, Spain, December 9–11, 2016
- *On the use of the contaminated Gaussian distribution in Hidden Markov models for longitudinal data*, “10th Scientific Meeting of the Classification and Data Analysis Group (CLADAG 2015)”, University of Cagliari, Cagliari, Italy, October 8–10, 2015
- *Semi-parametric estimation of the rate of return to education*, “Statistics and Demography: the Legacy of Corrado Gini (SIS 2015)”, Ca’ Foscari University of Venice, Treviso, Italy, September 9–11, 2015
- *Outlier Detection via Mixtures of Contaminated Gaussian Distributions*, “6th International Conference of the ERCIM WG on Computational and Methodological Statistics (ERCIM 2013)”, University of London, London, UK, December 14–16, 2013
- *Flexible Model-Based Clustering via the Cluster-Weighted Approach*, “Classification Society 2013 Annual Meeting (SSC 2013)”, University of Wisconsin, Milwaukee, WI, USA, June 13–15, 2013

In Contributed Sessions

- “Statistics and Demography: the Legacy of Corrado Gini (SIS 2015)”, Ca’ Foscari University of Venice, Treviso, Italy, September 9–11, 2015.
- Second internal meeting of the FIRB (Futuro in Ricerca 2012) “Mixture and latent variable models for causal-inference and analysis of socio-economic data”, Sapienza University of Rome, Rome, Italy, January 23–24, 2015.
- “Advances in Statistical Modelling of Ordinal Data (ASMOD 2013)”, University of Naples (Federico II), Naples, Italy, November 25–26, 2013.
- “9th Scientific Meeting of the Classification and Data Analysis Group (CLADAG) of the Italian Statistical Society”, University of Modena and Reggio Emilia, Modena, Italy, September 18–20, 2013.
- “2013 Conference of the International Federation of Classification Societies (IFCS)”, Tilburg University, Tilburg, The Netherlands, July 14–17, 2013.
- “41st Annual Meeting of the Statistical Society of Canada (SSC 2013)”, University of Alberta, Edmonton, AB, Canada, May 26–29, 2013.
- “4th International Conference of the ERCIM Working Group on COMPUTING & STATISTICS (ERCIM’ 11)”, London, UK, December 17–19, 2011.
- “VIII Meeting of the Classification and Data Analysis Group (CLADAG) of the Italian Statistical Society”, Pavia, Italy, September 7–9, 2011.
- “VII Meeting of the Classification and Data Analysis Group (CLADAG) of the Italian Statistical Society”, University of Catania, Catania, Italy, September 9–11, 2009.
- “11th Conference of the International Federation of Classification Societies”, Dresden, Germany, March 13–18, 2009.
- “Statistical Modelling for University Evaluation: An International Overview”, Foggia, Italy, September 5–6, 2008.
- “32nd Annual Conference of the German Classification Society”, Hamburg, Germany, July 16–18, 2008.

Awards

- BEST POSTER AWARD, conferred to Angelo Mazza and Antonio Punzo, for the Scientific quality of the poster entitled “An R Package for Discrete Beta Kernel Graduation of Probabilities of Dying” presented at the 11th edition of the *Giornate di Studio sulla Popolazione (Population Days)*, Palermo, Italy, 4–6 February 2015.

Teaching Activities

- *Academic Year 2018/2019:*
 - Professor of “Statistical Models” (47 hours, 6 CFU) for the Department of Computer Science and Mathematics of the University of Catania.
 - Professor of “Statistics” (60 hours, 9 CFU) for the Department of Economics and Business of the University of Catania.
- *Academic Year 2017/2018:*
 - Professor of “Statistical Models” (47 hours, 6 CFU) for the Department of Computer Science and Mathematics of the University of Catania.
 - Professor of “Statistical Models for Economics and Finance” (60 hours, 9 CFU) for the Department of Economics and Business of the University of Catania.
 - Professor of “Statistics” (60 hours, 9 CFU) for the Department of Economics and Business of the University of Catania.
- *Academic Year 2016/2017:*
 - Professor of “An Introduction to Finite Mixture Models” (20 hours) for the Ph.D. in “Economics, Management and Statistics” (DOT1314289) of the University of Messina.
 - Professor of “Statistical Models for Economics and Finance” (60 hours, 9 CFU) for the Department of Economics and Business of the University of Catania.
 - Professor of “Statistics” (60 hours, 9 CFU) for the Department of Economics and Business of the University of Catania.
- *Academic Year 2015/2016:*
 - Professor of “Statistical Models for Economics and Finance” (60 hours, 9 CFU) for the Department of Economics and Business of the University of Catania.
 - Professor of “Statistics” (60 hours, 9 CFU) for the Department of Economics and Business of the University of Catania.
- *Academic Year 2014/2015:* Professor of “Statistical Models for Economics and Finance” (40 hours, 6 CFU) for the Department of Economics and Business of the University of Catania.
- *Academic Year 2013/2014:* Professor of “Statistics” (60 hours, 9 CFU) for the Department of Economics and Business of the University of Catania.
- *Academic Year 2012/2013:* Professor of “Statistics” (60 hours, 9 CFU) for the Department of Economics and Business of the University of Catania.
- *Academic Year 2011/2012:* Professor of “Data Analysis” (40 hours, 6 CFU) for the Faculty of Economics of the University of Catania.
- *Academic Year 2010/2011:* Professor of “Data Analysis” (40 hours, 6 CFU) for the Faculty of Economics of the University of Catania.
- *Academic Year 2008/2009:* Tutoring activity of “Statistics” for the Faculty of Economics of the University of Catania.

- *Academic Year 2007/2008*: Exercising activity of “Statistics Mod. A” for the Faculty of Economics of the University of Milano-Bicocca.
- *Academic Year 2006/2007*:
 - Exercising activity of “Inference” for the Faculty of Economics of the University of Milano-Bicocca.
 - Exercising activity of “Statistics II B” for the Faculty of Economics of the University of Milano-Bicocca.
 - Exercising activity of “Statistics Mod. A” for the Faculty of Economics of the University of Milano-Bicocca.
- *Academic Year 2005/2006*: Exercising activity of “Inference” for the Faculty of Economics of the University of Milano-Bicocca.

List of Scientific Publications

Ph.D Thesis

- *Smoothing Techniques in Item Response Theory*, (2008). Ph.D. Thesis in “Methodological and Applied Statistics”, Department of Quantitative Methods in Economics and Business, Faculty of Economics, University of Milano-Bicocca.

Peer-Reviewed Articles

- 2019**
1. **Punzo A.**, Blostein M. and McNicholas P. D. (2019). High-dimensional unsupervised classification via parsimonious contaminated mixtures. *Pattern Recognition*, (forthcoming).
 2. **Punzo A.** and Tortora C. (2019). Multiple scaled contaminated normal distribution and its application in clustering. *Statistical Modelling*, (forthcoming).
 3. Di Mari R., Bakk Z. and **Punzo A.** (2019). A random-covariate approach for distal outcome prediction with latent class analysis. *Structural Equation Modeling: A Multidisciplinary Journal*, (forthcoming).
 4. Tomarchio S. D. and **Punzo A.** (2019). Modelling the loss given default distribution via a family of zero-and-one inflated mixture models. *Journal of the Royal Statistical Society: Series A*, (forthcoming).
DOI: <https://doi.org/10.1111/rssa.12466>
 5. Ingrassia S. and **Punzo A.** (2019). Cluster validation for mixtures of regressions via the total sum of squares decomposition. *Journal of Classification*, (forthcoming).
DOI: <https://doi.org/10.1007/s00357-019-09326-4>
 6. Mazza A. and **Punzo A.** (2019). Mixtures of multivariate contaminated normal regression models. *Statistical Papers*, (forthcoming).
DOI: <https://dx.doi.org/10.1007/s00362-017-0964-y>
 7. Zarei S., Mohammadpour A., Ingrassia S. and **Punzo A.** (2019). On the use of the sub-Gaussian α -stable distribution in the cluster-weighted model. *Iranian Journal of Science and Technology, Transactions A: Science*, **43**(3): 1059–1069.
DOI: <https://dx.doi.org/10.1007/s40995-018-0526-8>
 8. **Punzo A.** (2019). A new look at the inverse Gaussian distribution with applications to insurance and economic data. *Journal of Applied Statistics*, **46**(7): 1260–1287.
DOI: <https://doi.org/10.1080/02664763.2018.1542668>
 9. Maruotti A., **Punzo A.** and Bagnato L. (2019). Hidden Markov and semi-Markov models with multivariate leptokurtic-normal components for robust modeling of daily returns series. *Journal of Financial Econometrics*, **17**(1): 91–117.
DOI: <https://dx.doi.org/10.1093/jjfinec/nby019>

10. Morris K., **Punzo A.**, McNicholas P. D. and Browne R. P. (2019). Asymmetric Clusters and Outliers: Mixtures of Multivariate Contaminated Shifted Asymmetric Laplace Distributions. *Computational Statistics & Data Analysis*, **132**: 145–166.
DOI: <https://doi.org/10.1016/j.csda.2018.12.001>
- 2018** 11. Mazza A., **Punzo A.** and Ingrassia S. (2018). **flexCWM**: A Flexible Framework for Cluster-Weighted Models. *Journal of Statistical Software*, **86**(2): 1–30.
DOI: <https://dx.doi.org/10.18637/jss.v086.i02>
12. **Punzo A.**, Mazza A. and Maruotti A. (2018). Fitting insurance and economic data with outliers: A flexible approach based on finite mixtures of contaminated gamma distributions. *Journal of Applied Statistics*, **45**(14): 2563–2584.
DOI: <https://dx.doi.org/10.1080/02664763.2018.1428288>
13. **Punzo A.**, Mazza A. and McNicholas P. D. (2018). **ContaminatedMixt**: An R Package for Fitting Parsimonious Mixtures of Multivariate Contaminated Normal Distributions. *Journal of Statistical Software*, **85**(10): 1–25.
DOI: <https://dx.doi.org/10.18637/jss.v085.i10>
14. **Punzo A.**, Bagnato L., and Maruotti A. (2018). Compound unimodal distributions for insurance losses. *Insurance: Mathematics and Economics*, **81**: 95–107.
DOI: <https://dx.doi.org/10.1016/j.insmatheco.2017.10.007>
15. Bagnato L., De Capitani L. and **Punzo A.** (2018). Testing for serial independence: Beyond the Portmanteau approach. *The American Statistician*, **72**(3): 219–238.
DOI: <https://dx.doi.org/10.1080/00031305.2016.1264314>
16. **Punzo A.**, Ingrassia S. and Maruotti A. (2018). Multivariate generalized hidden Markov regression models with random covariates: physical exercise in an elderly population. *Statistics in Medicine*, **37**(19): 2797–2808.
DOI: <https://dx.doi.org/10.1002/sim.7687>
- 2017** 17. **Punzo A.** and McNicholas P. D. (2017). Robust clustering in regression analysis via the contaminated Gaussian cluster-weighted model. *Journal of Classification*, **34**(2): 249–293.
DOI: <https://doi.org/10.1007/s00357-017-9234-x>
18. Maruotti A. and **Punzo A.** (2017). Model-based time-varying clustering of multivariate longitudinal data with covariates and outliers. *Computational Statistics & Data Analysis*, **113**: 475–496.
DOI: <https://doi.org/10.1016/j.csda.2016.05.024>
19. Mazza A. and **Punzo A.** (2017). Dealing with omitted answers in a survey on social integration of immigrants in Italy. *Mathematical Population Studies*, **24**(2): 84–102.
DOI: <https://dx.doi.org/10.1080/08898480.2016.1271648>
20. Dang U. J., **Punzo A.**, McNicholas P. D., Ingrassia S. and Browne R. P. (2017). Multivariate response and parsimony for Gaussian cluster-weighted models. *Journal of Classification*, **34**(1): 4–34.
DOI: <https://doi.org/10.1007/s00357-017-9221-2>
21. Bagnato L., **Punzo A.** and Zoia M. G. (2017). The multivariate leptokurtic-normal distribution and its application in model-based clustering. *Canadian Journal of Statistics*, **45**(1): 95–119.
DOI: <https://doi.org/10.1002/cjs.11308>
22. Bagnato L., De Capitani L. and **Punzo A.** (2017). A diagram to detect serial dependencies: an application to transport time series. *Quality & Quantity*, **51**(2): 581–594.
DOI: <https://doi.org/10.1007/s11135-016-0426-y>
- 2016** 23. Berta P., Ingrassia S., **Punzo A.** and Vittadini G. (2016). Cluster-weighted multilevel models for the evaluation of hospitals. *METRON*, **74**(3), 275–292.
DOI: <https://doi.org/10.1007/s40300-016-0098-3>
24. **Punzo A.** and Maruotti A. (2016). Clustering multivariate longitudinal observations: The contaminated Gaussian hidden Markov model. *Journal of Computational and Graphical Statistics*, **25**(4), 1097–1116.
DOI: <https://doi.org/10.1080/10618600.2015.1089776>

25. **Punzo A.** and McNicholas P. D. (2016). Parsimonious mixtures of multivariate contaminated normal distributions. *Biometrical Journal*, **58**(6), 1506–1537.
DOI: <https://doi.org/10.1002/bimj.201500144>
26. Bagnato L., De Capitani L. and **Punzo A.** (2016). The Kullback-Leibler autodependogram. *Journal of Applied Statistics*, **43**(14), 2574–2594.
DOI: <https://doi.org/10.1080/02664763.2016.1142943>
27. Mazza A. and **Punzo A.** (2016). Spatial attraction in migrants' settlement patterns in the city of Catania. *Demographic Research*, **35**(5), 117–138.
DOI: <https://doi.org/10.4054/DemRes.2016.35.5>
28. Maruotti A., **Punzo A.**, Mastrantonio G. and Lagona F. (2016). A time-dependent extension of the projected normal regression model for longitudinal circular data based on a hidden Markov heterogeneity structure. *Stochastic Environmental Research and Risk Assessment*, **30**(6), 1725–1740.
DOI: <https://doi.org/10.1007/s00477-015-1183-5>
29. **Punzo A.** and Ingrassia S. (2016). Clustering bivariate mixed-type data via the cluster-weighted model. *Computational Statistics*, **31**(3): 989–1013.
DOI: <https://doi.org/10.1007/s00180-015-0600-z>
30. **Punzo A.**, Browne R. P. and McNicholas P. D. (2016). Hypothesis testing for mixture model selection. *Journal of Statistical Computation and Simulation*, **86**(14): 2797–2818.
DOI: <https://doi.org/10.1080/00949655.2015.1131282>
31. Ingrassia S. and **Punzo A.** (2016). Decision boundaries for mixtures of regressions. *Journal of the Korean Statistical Society*, **45**(2): 295–306.
DOI: <https://doi.org/10.1016/j.jkss.2015.11.005>
- 2015** 32. Subedi S., **Punzo A.**, Ingrassia S. and McNicholas P. D. (2015). Cluster-weighted t -factor analyzers for robust model-based clustering and dimension reduction. *Statistical Methods & Applications*, **24**(4): 623–649.
DOI: <https://doi.org/10.1007/s10260-015-0298-7>
33. Mazza A. and **Punzo A.** (2015). Bivariate Discrete Beta Kernel Graduation of Mortality Data. *Lifetime Data Analysis*, **21**(3): 419–433.
DOI: <https://doi.org/10.1007/s10985-014-9300-1>
34. Ingrassia S., **Punzo A.**, Vittadini G. and Minotti S.C. (2015). The Generalized Linear Mixed Cluster-Weighted Model. *Journal of Classification*, **32**(1): 85–113.
DOI: <https://doi.org/10.1007/s00357-015-9175-1>
35. Bagnato L., De Capitani L., Mazza A. and **Punzo A.** (2015). **SDD**: An R Package for Serial Dependence Diagrams. *Journal of Statistical Software*, **64**(Code Snippet 2): 1–19.
DOI: <https://doi.org/10.18637/jss.v064.c02>
36. Mazza A. and **Punzo A.** (2015). On the upward bias of the dissimilarity index and its corrections. *Sociological Methods & Research*, **44**(1): 80–107.
DOI: <https://doi.org/10.1177/0049124114543242>
- 2014** 37. Bagnato L., De Capitani L. and **Punzo A.** (2014). Testing Serial Independence via Density-Based Measures of Divergence. *Methodology and Computing in Applied Probability*, **16**(3): 627–641.
DOI: <https://doi.org/10.1007/s11009-013-9320-4>
38. Altavilla A. M., Mazza A. and **Punzo A.** (2014). A comparison of bias correction methods for the dissimilarity index. *Rivista Italiana di Economia, Demografia e Statistica*, **LXVIII**(3–4): 159–166.
39. Mazza A., **Punzo A.** and McGuire B. (2014). **KernSmoothIRT**: An R Package for Kernel Smoothing in Item Response Theory. *Journal of Statistical Software*, **58**(6): 1–34.
DOI: <https://doi.org/10.18637/jss.v058.i06>
40. **Punzo A.** (2014). Flexible Mixture Modelling with the Polynomial Gaussian Cluster-Weighted Model. *Statistical Modelling*, **14**(3): 257–291.
DOI: <https://doi.org/10.1177/1471082X13503455>

41. Mazza A. and **Punzo A.** (2014). **DBKGrad**: An R Package for Mortality Rates Graduation by Fixed and Adaptive Discrete Beta Kernel Techniques. *Journal of Statistical Software*, **57**(Code Snippet 2): 1–18.
DOI: <https://doi.org/10.18637/jss.v057.c02>
42. Altavilla A. M., Mazza A. and **Punzo A.** (2014). An R Snippet for Adaptive Beta Kernel Graduation. An Application to Italian Mortality Data. *Rivista Italiana di Economia, Demografia e Statistica*, **LXVIII**(1): 7–14.
43. Bagnato L., De Capitani L. and **Punzo A.** (2014). Detecting Serial Dependencies with the Reproducibility Probability Autodependogram. *ASta Advances in Statistical Analysis*, **98**(1): 35–61.
DOI: <https://doi.org/10.1007/s10182-013-0208-y>
44. Bertoli-Barsotti L. and **Punzo A.** (2014). Refusal to answer specific questions in a survey: a case study. *Communications in Statistics - Theory and Methods*, **43**(4): 826–838.
DOI: <https://doi.org/10.1080/03610926.2013.813761>
45. Ingrassia S., Minotti S. C. and **Punzo A.** (2014). Model-based clustering via linear cluster-weighted models. *Computational Statistics & Data Analysis*, **71**: 159–182.
DOI: <https://doi.org/10.1016/j.csda.2013.02.012>
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R Software Packages

- R-Package **KernSmoothIRT** available at:
<http://cran.r-project.org/web/packages/KernSmoothIRT/index.html>
(In collaboration with Mazza A. and McGuire B.)
- R-Package **DBKGrad** available at:
<http://cran.r-project.org/web/packages/DBKGrad/index.html>
(In collaboration with Mazza A.)

- R-Package **SDD** available at:
<http://cran.r-project.org/web/packages/SDD/index.html>
(In collaboration with Bagnato L., De Capitani L., and Mazza A.)
- R-Package **flexCWM** available at:
<http://cran.r-project.org/web/packages/flexCWM/index.html>
(In collaboration with Mazza A. and Ingrassia S.)
- R-Package **ContaminatedMixt** available at:
<http://cran.r-project.org/web/packages/pmcgd/index.html>
(In collaboration with Mazza A. and McNicholas P. D.)