

Work in progress

- [1] Fuzzy regression analysis based on M-estimates (with S. M. Taheri, J. Chachi).
- [2] OWA fuzzy regression (with J. Chachi).
- [3] Helping to “keep the bastards honest”: the local press as the fourth and one-half estate (with L. De Giovanni, N. Fiorino, E. Galli, G. Garzarelli, Antonio Pacifico), *submitted*.
- [1] Cophenetic-based fuzzy clustering of time series by linear dependency (with A.M. Alonso, D.C. Gamboa, V. Guerrero), *submitted*.
- [2] A Kendall distance-based robust fuzzy clustering for preference data (with V. Vitale), *submitted*.
- [3] Entropy-based fuzzy clustering of interval-valued data (with L. De Giovanni, M. Fordellone), *submitted*.
- [4] A Fuzzy Penalized Regression Model with Variable Selection (with M. Kashani, M. Arashi, M. R. Rabiei), *submitted*.
- [5] Wavelet-based fuzzy clustering of interval time series (with M.P. Brito, L. De Giovanni, E.A. Maharaj, P. Teles), *submitted*.
- [6] Statistics: Principles and methods (with G. Cicchitelli, M. Minozzo), Pearson.

Riviste scientifiche

- [1] Clustering of the Italian regions based on their equitable and sustainable well-being indicators: a three-way approach (with L. Bocci, V. Vitale), **Social Indicators Research**, 2020, *in press (rivista classe A)*.
- [2] To share or not to share: determinants of sharing mobility in Italy (with A. Guandalini, F.R. Mallamaci, V. Vitale, L. Bocci), **Social Indicators Research**, 2020, *in press (rivista classe A)*.
- [3] A tourist segmentation based on motivation, satisfaction and prior knowledge with a socio-economic profiling: a clustering approach with mixed information (with L. De Giovanni, M. Disegna, R. Massari, V. Vitale), **Social Indicators Research**, 2020, *in press (rivista classe A)*.
- [4] Modeling local BES indicators by Copula-based Bayesian Networks (with V. Vitale), **Social Indicators Research**, 2020, *in press (rivista classe A)*.
- [5] Multiple breaks detection in financial interval-valued time series (with R. Cerqueti, C. Cappelli, F. Di Iorio), **Expert Systems with Applications**, 2021, 164, 113775 (*rivista classe A*).
- [6] Cepstral-based clustering of financial time series (with L. De Giovanni, R. Massari, R.L. D’Ecclesia E.A. Maharaj), **Expert Systems with Applications**, 2020, 161, 113705 (*rivista classe A*).
- [7] Bayesian networks model averaging for Bes indicators (with V. Vitale), **Social Indicators Research**, 2020, *in press (rivista classe A)*.
- [8] Atheoretical regression trees for classifying risk financial institutions (con C. Cappelli, F. Di Iorio, A. Maddaloni), **Annals of Operations Research**, 2020, *in press (rivista classe A)*.
- [9] Well-being in the Italian regions over time (with L. Alaimo, L. De Giovanni, R. Massari), **Social Indicators Research**, 2020, *in press (rivista classe A)*.
- [10] Robust fuzzy clustering based on the quantile autocovariance (con J.A. Vilar, B. Lafuente), **Statistical Papers**, 2020, 61, 2393–2448 (*rivista classe A*).
- [11] Trimmed fuzzy clustering of financial time series based on Dynamic Time Warping (con L. De Giovanni, R. Massari), **Annals of Operations Research**, 2020, *in press (rivista classe A)*.
- [12] Satisfaction and tourism expenditure behaviour (with M. Disegna, R. Massari), **Social Indicators Research**, 2020 149(3), 1081-1106 (*rivista classe A*).

- [13] A robust hierarchical clustering for geostatistical data (with V. Vitale), **Spatial Statistics**, 2020, 100407, doi.org/10.1016/j.spasta.2020.100407 (*rivista classe A*).
- [14] Smoothed Self-Organizing Map for robust clustering (con L. De Giovanni, R. Massari), **Information Sciences**, 2020, 512, 381-401 (*rivista classe A*).
- [15] Fuzzy clustering of fuzzy data based on robust loss functions and Ordered Weighted Averaging (con J. Leski), **Fuzzy Sets and Systems**, , 2020, 389, 1-28.
- [16] Fuzzy clustering of mixed data (con R. Massari), **Information Sciences**, 2019, 505, 513-534 (*rivista classe A*).
- [17] Cross sectional and longitudinal fuzzy clustering Regional Competitiveness Index with contiguity constraints of the NUTs and positioning of the Italian regions with respect to the Regional Competitiveness Index (RCI) L. De Giovanni, R. Massari, F. M. Sica), **Social Indicators Research**, 2019, 146, 609–650 (*rivista classe A*).
- [18] Fuzzy clustering with spatial-temporal information (con L. De Giovanni, M. Disegna, R. Massari), **Spatial Statistics**, 2019, 30, 71-102 (*rivista classe A*).
- [19] Visualizing regional clusters of Sardinia's UE supported agriculture: a spatial fuzzy partitioning around medoids (con G. Manca, N.M. Waters, S. Girone), **Land Use Policy**, 2019, 83, 571-580 (*rivista classe A*).
- [20] Robust fuzzy clustering of multivariate time trajectories (con L. De Giovanni, R. Massari), **International Journal of Approximate Reasoning**, 2018, 99, 12-38 (*rivista classe A*).
- [21] Quantile autocovariances: a powerful tool for hard and soft partitional clustering of time series (con J.A. Vilar, B. Lafuente), **Fuzzy Sets and Systems**, 2018, 340, 38-72.
- [22] Unsupervised learning (con L. De Giovanni), **Wiley Encyclopedia of Electrical and Electronics Engineering**, 2018, 1-23.
- [23] Analysing cluster evolution using repeated cross-sectional ordinal data, **Tourism Management**, 2018, 69, 524–536 (con M. Disegna, R. Massari) (*rivista classe A*).
- [24] Exponential distance-based fuzzy clustering for interval-valued data (con L De Giovanni, R. Massari, C. Cappelli), **Fuzzy Optimization and Decision Making**, 2017, 16, 51–70.
- [25] Informational paradigm, management of uncertainty and theoretical formalisms in a clustering framework: a review, **Information Sciences**, 2017, 400–401, 30–62 (*rivista classe A*).
- [26] Exploratory multivariate analysis for empirical information affected by uncertainty and modeled in a fuzzy manner: a review, **Granular Computing**, 2017, 2, 225–247.
- [27] Fuzzy clustering of time series using extremes (con A.M. Alonso, E.A. Maharaj), **Fuzzy Sets and Systems**, 2017, 318, 56-79 (*rivista classe A*).
- [28] Copula-based fuzzy clustering of spatial time series (con M. Disegna, F. Durante), **Spatial Statistics**, 2017, 21, 209-225 (*rivista classe A*).
- [29] Fuzzy data analysis and classification, Editorial, Special issue in memoriam of Professor Lotfi A. Zadeh, father of fuzzy logic (con M.A. Gil), **Advances in Data Analysis and Classification** (2017) 11, 645–657 (*rivista classe A*).
- [30] Autoregressive metric-based trimmed fuzzy clustering with an application to PM10 time series, (con C. Cappelli, L. De Giovanni, R. Massari), **Chemometrics and Intelligent Laboratory Systems**, 2017, 161, 15-26 (*rivista classe A*).
- [31] Consumer behaviour and online advertising: a fuzzy approach to the market segmentation, (con I. Di Monte, R. Massari, C. Cappelli), **Micro & Macro Marketing**, 2017, 2, 213-228.
- [32] Fuzzy segmentation of postmodern tourists (con M. Disegna, R. Massari, L. Osti), **Tourism Management**, 55, 297–308, 2016 (*rivista classe A*).
- [33] GARCH-based Robust Fuzzy Clustering of Time Series (con L De Giovanni, R. Massari), **Fuzzy Sets and Systems**, 2016, 305, 1–28 (*rivista classe A*).
- [34] Fuzzy C-ordered medoids clustering of interval-valued data (con, J. Leski), **Pattern Recognition**, 2016, 58, 9–67 (*rivista classe A*).
- [35] Bagged fuzzy clustering for fuzzy data: An application to a tourism market (con M. Disegna, R. Massari, G. Prayag), **Knowledge-Based Systems**, 2015, 73, 335-346 (*rivista classe A*).

- [36] Time Series Clustering by a Robust Autoregressive Metric with Application to Air Pollution (con L. De Giovanni, R. Massari), **Chemometrics and Intelligent Laboratory Systems**, 2015, 141(15), 107–124 (*rivista classe A*).
- [37] Trimmed fuzzy clustering for interval-valued data (con L. De Giovanni, R. Massari), **Advances in Data Analysis and Classification**, 2015, 9, 21-40.
- [38] Regime change analysis of interval-valued time series with an application to PM10 (con C. Cappelli, F. Di Iorio), **Chemometrics and Intelligent Laboratory Systems**, 2015, 146, 337–346 (*rivista classe A*).
- [39] Clustering Seasonal Time Series Using Extreme Value Analysis: An Application to Spanish Temperature Time Series (con A.M. Alonso, E.A. Maharaj), **Communications in Statistics: Case Studies, Data Analysis and Applications**, 1, 4, 175-191, 2016.
- [40] Self-organizing maps for imprecise data (con L. De Giovanni, R. Massari), **Fuzzy Sets and Systems**, 2014, [237](#), 63-89 (*rivista classe A*).
- [41] Wavelet-based Self Organizing Maps for classifying multivariate time series (con L. De Giovanni, E.A. Maharaj, R. Massari), **Journal of Chemometrics**, 2014, 28, 28-51 (*rivista classe A*).
- [42] Robust clustering of imprecise data (con L. De Giovanni), **Chemometrics and Intelligent Laboratory Systems**, 2014, [136](#), 58–80 (*rivista classe A*).
- [43] Fuzzy Clustering of Human Activity Patterns (con R. Massari), **Fuzzy Sets and Systems**, 2013, 215, 29-54 (*rivista classe A*).
- [44] A Fuzzy Taxonomy for e-Health Projects (con L. De Giovanni, P. Spagnoletti), **International Journal of Machine Learning and Cybernetics**, 2013, 4, 487-504.
- [45] Autoregressive Model-based Fuzzy Clustering and Its Application for Detecting Information Redundancy in Air Pollution Monitoring Networks (con D. Di Lallo, E.A. Maharaj), **Soft Computing**, 2013, 17, 83–131.
- [46] Clustering of Financial Time Series (con C. Cappelli, D. Di Lallo, R. Massari), **Physica A: Statistical Mechanics and its Applications**, 2013, 392 (9), 2114-2129.
- [47] Change point analysis for imprecise time series (con C. Cappelli, F. Di Iorio), **Fuzzy Sets and Systems**, 2013, 225, 23-38 (*rivista classe A*).
- [48] Bagged Clustering and its Application to Tourism Market Segmentation, (con, L. De Giovanni, M. Disegna, R. Massari), **Expert Systems with Applications**, 2013, 40 (12), 4944-4956 (*rivista classe A*).
- [49] Noise fuzzy clustering of time series by the autoregressive metric (con L. De Giovanni, R. Massari, D. Di Lallo), **Metron**, 2013, 71, 217–243,
- [50] Weighted Least Squares and Least Median Squares estimation for the fuzzy linear regression analysis, (con R. Massari), **Metron**, 2013, 71, 279–306.
- [51] Fuzzy Statistical Analysis: methods and applications, Editorial, Special Issue **Metron**, 2013, 71, 197–199 (con M.A. Gil).
- [52] Fuzzy and Possibilistic Clustering Models for Fuzzy Data (con R. Coppi, P. Giordani), **Computational Statistics and Data Analysis**, 2012, 915-927 (*rivista classe A*).
- [53] Wavelet-Based Clustering of Multivariate Time Series (con E.A. Maharaj), **Fuzzy Sets and Systems**, 2012, 193, 33–61 (*rivista classe A*).
- [54] Mixtures of autoregressions with an improper component for panel data (con N.T. Longford), **Journal of Classification**, 2012, 29, 341-362 (*rivista classe A*).
- [55] Regression trees for change point analysis of ordinal time series, **Quaderni di Statistica**, 2012, 14, 57-60 (con C. Cappelli, F. Di Iorio).
- [56] Fuzzy Clustering of Time Series in the Frequency Domain (con E.A. Maharaj), **Information Sciences**, 2011, 181, 1187-1211 (*rivista classe A*).
- [57] Mixture Models with an Improper Component (con N.T. Longford), **Journal of Applied Statistics**, 2011, 38, 2511-2521.

- [58] Midpoint Radius Self-Organizing Maps for Interval-Valued Data with Telecommunications Application (con L. De Giovanni), **Applied Soft Computing**, 2011, 11, 3877-3886 (*rivista classe A*).
- [59] Robust Fuzzy Regression Analysis (con R. Massari, A. Santoro), **Information Sciences**, 2011, 181, 4154-4174 (*rivista classe A*).
- [60] A Fuzzy Clustering Model for Multivariate Spatial Time Series, **Journal of Classification** (con R. Coppi, P. Giordani), 2010, 27, 54-88 (*rivista classe A*).
- [61] A Coherence-Based Approach for the Pattern Recognition of Time Series, **Physica A: Statistical Mechanics and its Applications** (con E.A. Maharaj), 2010, 389, 3516-3537.
- [62] Wavelets-based Fuzzy Clustering of Time Series, **Journal of Classification** (con E.A. Maharaj, D.U.A. Galagedera), 2010, 27, 231-275 (*rivista classe A*).
- [63] A Class of Fuzzy Clusterwise Regression Models (con R. Massari, A. Santoro), **Information Sciences**, 2010, 180, 4737-4762 (*rivista classe A*).
- [64] Multi-Sample Test-based Clustering for Fuzzy Random Variables, **International Journal of Approximate Reasoning** (con A. Colubi, G. Gonzales Rodriguez, M. Montenegro), 2009, 50, 5, 721-731 (*rivista classe A*).
- [65] Autocorrelation-based Fuzzy Clustering of Time Series, **Fuzzy Sets and Systems** (con E. A. Maharaj), 2009, 160, 3565-3589 (*rivista classe A*).
- [66] Temporal Self-Organizing Maps for Telecommunications Market Segmentation (con L. De Giovanni), **Neurocomputing**, 2008, 71, 2880-2892.
- [67] Component Models for Fuzzy Data, **Psychometrika**, 2007, 71(4), 733-761 (con R., Coppi, P. Giordani) (*rivista classe A*).
- [68] Statistics with Fuzzy Random Variables, **Metron**, 2007, LXV, 3, 277-303 (con A. Colubi, R. Coppi, M.A., Gil).
- [69] A Weighted Fuzzy c-Means Clustering Model for Fuzzy Data, **Computational Statistics & Data Analysis**, 2006, 50 (6), 1496-1523 (con P. Giordani) (*rivista classe A*).
- [70] Fuzzy Unsupervised Classification of Multivariate Time Trajectories with the Shannon Entropy Regularization, **Computational Statistics & Data Analysis**, 2006, 50 (6), 1452-1477 (con R. Coppi) (*rivista classe A*).
- [71] Goodness of Fit and Variable Selection in the Fuzzy Multiple Linear Regression, **Fuzzy Sets and Systems**, 2006 157, 2627-2647 (con A. Santoro) (*rivista classe A*).
- [72] A Robust Fuzzy k-Means Clustering Model for Interval Valued Data, **Computational Statistics**, 2006, 21, 251-269 (con P. Giordani) (*rivista classe A*).
- [73] Least Squares Estimation of a Linear Regression Model with LR Fuzzy Response, **Computational Statistics & Data Analysis**, 2006, 51, 267-286 (con R. Coppi, P. Giordani, A. Santoro) (*rivista classe A*).
- [74] Fuzzy Clusterwise Regression Analysis with Symmetrical Fuzzy Output Variable **Computational Statistics & Data Analysis**, 2006, 51, 287-313 (con A. Santoro) (*rivista classe A*).
- [75] A Possibilistic Approach to Latent Component Analysis for Symmetric Fuzzy Data, **Fuzzy Sets and Systems**, 2005, 150, 285-305 (con P. Giordani) (*rivista classe A*).
- [76] Fuzzy Clustering for Data Time Arrays with Inlier and Outlier Time Trajectories, **IEEE Transactions on Fuzzy Systems**, 2005, 13, 5, 583-604 (*rivista classe A*).
- [77] A Least-Squares Approach to Principal Component Analysis for Interval-Valued Data, **Chemometrics and Intelligent Laboratory Systems**, 70 (2), 179-192, 2004 (con P. Giordani) (*rivista classe A*).
- [78] Fuzzy C-Means Clustering Models for Multivariate Time-Varying Data: Different Approaches **International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems**, 12 (3), 287-326, 2004.

- [79] A Life-Test Procedure with Right Censored Data Based on the Wald-Wolfowitz Run Test, **Communications in Statistics. Simulation and Computation**, 32 (1), 95-102, 2003 (con T. Gastaldi).
- [80] Linear Regression Analysis for Fuzzy/Crisp Input and Fuzzy/Crisp Output Data, **Computational Statistics & Data Analysis**, 42 (1-2) 47-72, 2003 (*rivista classe A*).
- [81] Regression Analysis with Fuzzy Informational Paradigm: A Least-Squares Approach Using Membership Function Information, **International Journal of Pure and Applied Mathematics**, 8 (3), 279-306, 2003 (con R. Coppi).
- [82] Three-Way Fuzzy Clustering Models for LR Fuzzy Time Trajectories, **Computational Statistics & Data Analysis**, 43, 149-177, 2003 (con R. Coppi) (*rivista classe A*).
- [83] Fitting of Fuzzy Linear Regression Models with Multivariate Response, **International Mathematical Journal**, 3 (6), 655-664, 2003 (con P. Giordani).
- [84] An "Orderwise" Polynomial Regression Procedure for Fuzzy Data, **Fuzzy Sets and Systems**, 130 (1), 1-19, 2002 (con T. Gastaldi) (*rivista classe A*).
- [85] Fuzzy K-Means Clustering Models for Triangular Fuzzy Time Trajectories, **Statistical Methods and Applications**, 11 (1), 21-40, 2002 (con R. Coppi) (*rivista classe A*).
- [86] Dissimilarity Measures for Time Trajectories, **Journal of the Italian Statistical Society (Statistical Methods and Applications)**, 1-3, 53-83, 2000 (*rivista classe A*).
- [87] A Least-Squares Approach to Fuzzy Linear Regression Analysis, **Computational Statistics & Data Analysis**, 34, 427-440, 2000 (con T. Gastaldi) (*rivista classe A*).
- [88] Optimal Design of Air Quality Networks Detecting Warning and Alert Conditions, **Journal of the Italian Statistical Society (Statistical Methods and Applications)** 8 (1), 61-73, 1999 (con D. Romano, M.C. Cirillo, R. Coppi) (*rivista classe A*).
- [89] Un Modello Stocastico a Coefficienti Variabili e con Input Esogeni per lo Studio Predittivo dei Fenomeni Ambientali, **Annali di Statistica ISTAT**, X (10), 293-305, 1996 (con R. Coppi).

Manuali

- [1] Time Series Clustering and Classification (con E.A. Maharaj, J. Caiado), 2019, Chapman and Hall, ISBN 9781498773218.
- [2] Statistica – Principi e Metodi (con G. Cicchitelli, M. Minozzo), 2017, Pearson.

Capitoli di libri

- [1] Fuzzy clustering in travel and tourism analytics, in **Business and Consumer Analytics: New Ideas**, Springer, P. Moscato, N. J. de Vries (eds.) (con M. Disegna, R. Massari), 839-863, 2019, ISBN: 978-3-030-06221-7, <https://doi.org/10.1007/978-3-030-06222-4>.
- [2] Time series clustering, in **Handbook of Cluster Analysis**, Chapman & Hall, C. Hennig, M. Meila, F. Murtagh, R. Rocci (eds.) (con J. Caiado, E. A. Maharaj), 241-263, 2016.
- [3] Fuzzy clustering, in **Handbook of Cluster Analysis**, Chapman & Hall, C. Hennig, M. Meila, F. Murtagh, R. Rocci (eds.), 545-573, 2016.
- [4] Fuzzy Clustering of Fuzzy Data, in **Advances in Fuzzy Clustering and Its Applications**, J.V. de Oliveira, W. Pedrycz, J. Wiley and Sons, 155-192, 2007.
- [5] Arithmetic and Distance-Based Approach to the Statistical Analysis of Imprecisely Valued Data. In: Edited by Christian Borgelt, María Ángeles Gil, João M.C. Sousa, and Michel Verleysen. **Towards Advanced Data Analysis by Combining Soft Computing and Statistics**, 2013, 1-18, Springer (with A. Blanco-Fernandez, M.R. Casals, A. Colubi, R. Coppi, N. Corral, S.de la Rosa de Saa, M.B. Ferraro, M. Garcia-Barzana, M.A. Gil, P. Giordani, G. Gonzalez-Rodriguez, M.T. Lopez, M.A. Lubiano, M. Montenegro, T. Nakama, A.B. Ramos-Guajardo, B. Sinova, W. Trutschnig) ISBN: 9783642302770 .

- [6] Mixture Models with a Black-Hole Component, in **Combining Soft Computing and Statistical Methods in Data Analysis** (eds. [Christian Borgelt](#) et al.), **5th International Conference on Soft Methods in Probability and Statistics (SMPS 2010)**, September 28 - October 1, 2010, Oviedo and Mieres (Asturias, Spain), 427-435, **Springer-Verlag** Heidelberg, 2010 (con N.T. Longford).
- [7] Informational Paradigm and Entropy-Based Dynamic Clustering in a Complete Fuzzy Framework, in **Soft Methodology in Random Information Systems** (eds. Angeles Gil, M., Lopez-Diaz, M.C., Grzegorzewski, P.) (in **Advances in Soft Computing**), **2nd International Conference on Soft Methods in Probability and Statistics (SMPS2004)**, September, 2-4, Oviedo (Asturias) Spain, 463-470, **Springer-Verlag** Heidelberg, 2004 (con R. Coppi, P. Giordani).
- [8] The Dual Dynamic Factor Analysis Model, in **Classification, Automation, and New Media** (eds. W. Gaul, G. Ritter), Convegno GfKI (gruppo IFCS tedesco), Passau 15-17 marzo 2000 (invited lecture), 47-58, **Springer-Verlag**, Heidelberg, 2002 (con R. Coppi)
- [9] Linear Fuzzy Regression Analysis with Asymmetric Spreads, in **Advances in Data Science and Classification** (eds. S. Borra, R. Rocci, M. Vichi, M. Schader), Convegno CLADAG-SIS 99, Roma, 5-6 luglio, 257-264, **Springer-Verlag**, Heidelberg, 2001 (con T. Gastaldi).
- [10] The Geometric Approach to the Comparison of Multivariate Time Trajectories, in **Advances in Data Science and Classification** (eds. S. Borra, R. Rocci, M. Vichi, M. Schader), Convegno CLADAG-SIS 99, Roma, 5-6 luglio, 93-100, **Springer-Verlag**, Heidelberg, 2001 (con R. Coppi).
- [11] Fuzzy Time Arrays and Dissimilarity Measures For Fuzzy Time Trajectories, in **Data Analysis, Classification, and Related Methods** (eds. H.A.L Kiers, J.P. Rasson, P.J.F. Groenen, M. Schader), Convegno IFCS 2000, Namur 11-14 luglio 2000, 273-278, **Springer-Verlag**, Berlin, 2000 (con R. Coppi).
- [12] Consensus Classification For A Set of Multiple Time Series, in **Classification and Data Analysis**, (eds. M. Vichi and O. Opitz), 11-18, **Springer-Verlag**, Berlin, 1999 (con M.G. Pittau).
- [13] Fuzzy Clustering for Space-Time Series Using Spatial Autocorrelation Information, **FUZZ-IEEE2007, IEEE International Conference on Fuzzy Systems, Imperial College, London, 23-25 July, 2007**, 1438-1443 (con R., Coppi, P. Giordani).
- [14] Dissimilarities Between Trajectories of a Three-Way Longitudinal Data Set, in **Advances in Data Science and Classification** (eds. A. Rizzi, M. Vichi, H. H. Bock), Convegno IFCS 1998, Roma 21-24 luglio 1998, 585-592, **Springer-Verlag**, Berlin, 1998 (con M. Vichi).

Convegni nazionali e internazionali

- [1] Relazione alla Sessione plenaria – *Istruzione, Università e Ricerca nel Sud e in Europa*, III Riunione Scientifica del Dipartimento di Scienze Sociali ed Economiche (Sapienza -Università di Roma), Roma, 16-17 Dicembre 2019 (altri relatori: Eugenio Gaudio – Magnifico Rettore della Sapienza - Università di Roma; Luigi Fiorentino - Capo di Gabinetto del MIUR).
- [2] Relazione alla Sessione plenaria – *Disuguaglianze economiche e divari territoriali*, III Riunione Scientifica del Dipartimento di Scienze Sociali ed Economiche (Sapienza -Università di Roma), Roma, 16-17 Dicembre 2019 (uno dei relatori era A. Misiani – Viceministro Ministero dell’Economia e delle Finanze).
- [3] Relazione alla Sessione plenaria – *A trent’anni dalla caduta del Muro di Berlino*, III Riunione Scientifica del Dipartimento di Scienze Sociali ed Economiche (Sapienza -Università di Roma), Roma, 16-17 Dicembre 2019 (uno dei relatori era V. Elbling -Ambasciatore delle Repubblica Federale di Germania).
- [4] Relazione all’evento *“Paolo Baffi, Economista e Governatore della moneta: la commemorazione nei luoghi in cui ha insegnato”* 3 ottobre 2019, Sapienza – Università di Roma (uno dei relatori era Ignazio Visco, Governatore della Banca d’Italia).
- [5] Well-being In the Italian regions over time. A time-series fuzzy cluster analysis LVI Riunione Scientifica Benessere e Territorio: Metodi e Strategie, SIEDS, Ascoli Piceno, 23 - 24 maggio 2019 (D’Urso, Alaimo, Massari).

- [6] Studi elettorali prima e dopo il voto: inquadramento metodologico e paradigma informazionale. Sessione (coordinata da P. D'Urso): Le geografie elettorali: nuove mappe per leggere i territori. *13ª Conferenza Nazionale di Statistica, Dall'incertezza alla decisione consapevole. Un percorso da fare insieme*, Roma 4-6 Luglio 2018.
- [7] Dynamic Time Warping-based fuzzy clustering with spatial information (con L. De Giovanni, M. Disegna, R. Massari) *COMPSTAT 2018, 23rd International Conference on Computational Statistics, Iasi, Romania*, 28-31 August 2018.
- [8] Robust fuzzy clustering based on the quantile autocovariance, *61th World Statistics Congress ISI 2017*, 16-21 July, 2017, Marrakech (con J.A. Vilar, B. Lafuente)
- [9] The analysis of variety in tourism choice and consumption behavior – the contribution of path data *Recent Advances in Retailing and Consumer Science* Conference in Burnaby/Vancouver, June 26-29, 2017 (con A. Marcati, R. Massari).
- [10] Long-Term Projections using Extreme Value Analysis, *37th International Symposium on Forecasting* Cairns, North Queensland, Australia, 25-28 June 2017 (con A.M. Alonso, E.A. Maharaj)
- [11] Cluster fuzzy robusto de series temporales considerando un método de truncamiento, XXXVI Congreso Nacional de Estadística e Investigación Operativa, 5, 6 y 7 septiembre 2016 campus fábrica de armas, Toledo Universidad de Castilla-la Mancha (con B. Lafuente Rego, J. A. Vilar Fernández).
- [12] Robust atheoretical regression tree to detect structural breaks in financial time series (con C. Cappelli, F. Di Iorio), 48th Scientific Meeting of the Italian Statistical Society, University of Salerno, June 8, 2016 – June 10, 2016.
- [13] A robust theoretical regression tree to detect structural breaks in financial time series (con C. Cappelli, F. Di Iorio), 9th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2016), 9-11 December 2016, University of Seville, Seville, Spain.
- [14] Robust fuzzy clustering based on quantile autocovariances (con J. Vilar, B. Lafuente-Rego) 9th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2016), 9-11 December 2016, University of Seville, Seville, Spain.
- [15] Copula-based fuzzy clustering of spatial time series (con M. Disegna, F. Durante) 9th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2016), 9-11 December 2016, University of Seville, Seville, Spain.
- [16] Dynamic time warping-based fuzzy clustering for spatial-time series (con M. Disegna, R. Massari) CLADAG Conference, 10th Scientific Meeting of the Classification and Data Analysis Group, October 8-10, Cagliari, 2015.
- [17] Copula-based fuzzy clustering of time series (con M. Disegna, F. Durante) CLADAG Conference, 10th Scientific Meeting of the Classification and Data Analysis Group, October 8-10, Cagliari, 2015.
- [18] Robust fuzzy clustering of multivariate time trajectories (con R. Massari) CLADAG Conference, 10th Scientific Meeting of the Classification and Data Analysis Group, October 8-10, Cagliari, 2015.
- [19] Modeling tourism expenditures using a fuzzy approach (con M. Disegna, R. Massari), 5th Conference of the International Association for Tourism Economics (IATE), 30 June- 3 July, 2015 Hong Kong SAR, China.
- [20] Fuzzy Clustering of Extremes (con A.M. Alonso, E.A. Maharaj), 2nd IAAE Applied Econometrics Conference, June 25-27, 2015.
- [21] Regime change analysis of interval-valued time series with an application to PM10 (con C. Cappelli, F. Di Iorio), Conference of the [International Federation of Classification Societies \(IFCS\)](#), 6-8 July 2015, Bologna, Italy.

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