

CURRICULUM VITAE

PROF. GIUSEPPE ARBIA



Born in Roma 3 Luglio 1958

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Current position:

Full Professor of Economic Statistics, Faculty of Economics, Department of Statistics and Department of Public Health, Università Cattolica del Sacro Cuore, since December 2011.

Other current contract appointments:

Adjunct Professor of Statistics, University of Italian Switzerland at Lugano (Ticino, Switzerland).

Research Professor, ITPIR, The College of William & Mary, Williamsburg, Virginia (US).

Visiting Professor, Department of Economics, University of Illinois at Urbana Champaign (US).

Visiting Professor, Social Sciences Research Methods Centre, Cambridge University (UK).

Previous positions:

Full Professor of Statistics and of Economic Statistics, University of D'Annunzio of Chieti (Italy, 1995-2011). Full Professor of Economic Statistics (Faculty of Statistics, University of Padua, Italy, 1994-1995); Associate Professor of Statistics (Faculty of Economics, University of Trento, Italy, 1992-1994); Associate Researcher (Faculty of Statistics, University of Sapienza of Rome, Italy, 1983-1992).

Previous temporary contract positions:

Professor of Statistics, Department of Economics, New York University (US). Spring 2012. Adjunct Professor of Econometrics, (Faculty of Economics, LUISS Guido Carli University, Rome 2003-2012). Professor of Social Statistics, (Faculty of Economics, Universitas Mercatorum, Roma, 2008-2009), Professor of Statistics (Faculty of Political Sciences, University of Sapienza of Rome, 2003-2006), Professor of statistics and Quality control (University of San Marino, 1997-2004), Professor of Statistics (Faculty of Economics, University Tor Vergata, of Rome, Italy, 1992-1994); Visiting Professor (University of California at Santa Barbara, US, 1988-1989).

Academic degrees:

1984- 1987: *Doctor of Philosophy* - University of Cambridge (UK),

1977-1981: *BA in Statistics*, University of Sapienza, Rome (Italy)

Visiting scholar:

University of Illinois at Urbana-Champaign, April-May 2015.

New York University, Robert F. Wagner Graduate School of Public Service, New York, May 2014.

Université Panthéon Assas , Paris II ERMES, Paris, June, 2013.

New York University, Stern Business School, New York, April 2013.

New York University, Department of Economics, New York, January-May 2012.

New York University, Stern Business School, New York, March-April 2011.

Universidade Federal do Ceara, Fortaleza, CE Brasil, February 2011

University of Illinois at Urbana-Champaign, February 2008.
University of Texas at Dallas, January 2008.
University of Illinois at Urbana-Champaign, January-February 2007.
University of Cambridge, UK, August 2005.
University of Sheffield, UK, September 1991.
University of California at Santa Barbara, National Center for Geographical Information and Analysis, September-November 1989.

Academic tasks:

Chair of the Doctorate in Economics, University G. d'Annunzio, May 2011-December 2011.
Chair of the Doctorate in Innovation, University G. d'Annunzio, November 2010-May 2011.
Member of the Administration Council, University G. d'Annunzio of Chieti (Italy). 2006 . 2009.
Director of the Department of Business, Statistical, Technological and Environmental Sciences, University G. d'Annunzio of Chieti (Italy). 2003 . 2006.
Member of the Evaluation Committee (Nucleo di Valutazione) of the University G. d'Annunzio of Chieti (Italy). 2000-2003.
Chair of the BA program in Environmental Economics, Faculty of Economics, University G. d'Annunzio of Chieti (Italy), From November 1999 to March 2004.
Chair of the Doctorate in Economics and Management, 2004, 2005, University G. d'Annunzio.
Member of the board of the Doctorate in Applied Econometrics, Tor Vergata University, Roma, 2002 -2007.

Main Scientific Societies memberships:

International Statistical Institute, American Statistical Association, Royal Statistical Society, Regional Science Association, Spatial Econometrics Association, Società Italiana di Statistica.

Chair of Scientific Associations:

Chairman of the Spatial Econometrics Association (www.spataleconometricsassociation.org). 2006-present.

Prizes, fundings and awards:

Best paper award of the Regional Studies Association, for *Spatial Economic Analysis*, 2012.
Swiss National Science Foundation, International Exploratory Workshop, 2011; NATO Collaborative Research Grant, 1990, 1994; NSF National Science Foundation Research Grant, 1989; N.A.T.O. Award, 1986,1987,1988; Fitzwilliam Trust Research Fund, 1987; Borsa C.N.R.,1985, 1987; British Council Advanced Fellowship, 1985-1986.

Governmental tasks:

Committee for the revision of electoral boundaries for the election of Italian Senate and Chamber representatives, 1994.
President of the Observatory of Job and Professions of San Marino Republic. 1996 - 1998.
Member of the working group on Environmental Information of the Authority for Statistical Information, Presidency of the Italian Council of Ministry, 2003 - 2004.

Research projects coordinated:

20 projects national and International financed by CNR (Italian National Research Council), MIUR (Italian Ministry of University), NATO.

Teaching experience:

Basic Statistics, Advanced Statistics, Econometrics, Business Statistics, Economic Statistics, Applied Probability, Spatial Econometrics, Econometric models and time series, Basic Econometrics on Eviews ©, Statistical Quality Control, Multivariate Statistics, Applied Statistics on SPSS ©, Time series analysis, Stochastic processes and their applications, Spatial statistics, Social Statistics.

At a Bachelor, Master, Ph D and Executive level.

Congresses organized:

- VIII Annual Meeting of the Spatial Econometrics Association, Zurich, June 2014.

- VII Annual Meeting of the %Spatial Econometrics Association+, Washington, DC, July 2013. (Chair of the scientific committee).
- VI Annual Meeting of the %Spatial Econometrics Association+, Salvador Bahia, Brasil, July 2012. (Chair of the scientific committee).
- Third %Health Econometrics+ Workshop, Siena, December, 2012. (Member of the scientific committee; Invited position paper).
- V Annual Meeting of the %Spatial Econometrics Association+, Toulouse, July 2011. (Member of the scientific committee).
- IV Annual Meeting of the %Spatial Econometrics Association+, Chicago, June 2010. (Member of the scientific committee).
- Second %Health Econometrics+ Workshop, Catholic University of the Sacred Heart, Rome, July, 2010. (Member of the scientific committee).
- III Annual Meeting of the %Spatial Econometrics Association+, Barcellona, July, 2009. (Member of the scientific committee)
- First %Health Econometrics+ Workshop, Milan, December, 2008. (Member of the scientific committee).
- II Annual Meeting of the %Spatial Econometrics Association+, New York, November, 2008. (Chair of the local organizing committee. Member of the scientific committee)
- International Workshop on %Spatial Econometrics+, Roma, 25-27 May, 2006. (Chair of the local organizing committee. Chair of the scientific committee)
- International Workshop on Spatial statistical methods in archaeological and cultural heritage safeguard research ", Pescara, 18-19 July 2000. (Chair of the local organizing committee, Chair of the scientific committee)
- International Workshop on "Advances in spatial statistics: methods and application+, Trento, 20-21 October 1994. (Chair of the local organizing committee, Chair of the scientific committee)

Summer schools organized

- %Spatial Econometrics Advanced Institute+, 4 weeks course with international students and international instructors, Faculty of Economics, University of Rome %La Sapienza+, Rome, Director of the course and instructor of the %Spatial Statistics+ course.
Held yearly in May-June since 2008. 7-th edition planned in May 2014.
(<http://www.spatialeconometricsadvancedinstitute.org>)

Membership in Boards of Editors of Scientific Journals:

Empirical Economics, Letters in Spatial and Resource Sciences.

Past Membership in Boards of Editors of Scientific Journals:

Papers in Regional Sciences,

Referee activity:

Empirical Economics, Economic Modeling, Economic Letters, Papers in Regional Sciences, International Regional Science Review, Spatial Statistics, Spatial Economic Analysis, Urban geography, Journal of Economic Geography; Journal of Urban Economics, Regional Studies, Applied Economics, Journal of Applied Econometrics, Statistical Methods and Applications, Computational Statistics and Data Analysis; Geographical Analysis, Geographical Systems, Regional Studies, China Economic Review.

Seminars and Conferences:

(full list at <http://www.sci.unich.it/~arbia/l16.htm>) More than 100 invited speeches, seminars, conferences in the main universities and institutions all over the world.

Publications:

6 books published by Kluwer Academic-Dordrecht, Springer-Verlag, Palgrave-McMillan, CEDAM-Padua and CUSL-Padua,

8 Chapters of books published by Chapman & Hall, Edward Elgar Publisher, Taylor & Francis, Phisica-Verlag, Springer-Verlag, Martinus Nijhoff, Franco Angeli, Cacucci.

About 200 articles, working papers, conference proceedings and reviews published on the main International and Italian scientific journals.

In brief:

- 44 articles published on impacted journals listed on Thomson ISI Journal Citation Reports.
- 8 articles on refereed books
- 4 books with international publishers
- 2 books with Italian publishers
- 6 edited special issues of ISI Thompson listed journals
- 14 Articles on other refereed journals
- 103 other publications

Bibliometric indices:

ISI-Thompson

- Number of impacted papers: 44 (last 5 years 2010-2014: 17)
- Total impact: 53.928 (last 5 years 2010-2014: 21.992)
- Average impact per paper: 1.225 (last 5 years 2010-2014: 1.293)

Publish or Perish

- Papers: 146
- Number of Citations: 2042
- Cites/paper: 13.99 Cites/author: 84.36 Cites/year: 70.41
- Hirsch index (h-index): 22 hc-index: 14 g-index: 43
- hl,norm: 16

Research Gate

- Reputation score: 19.82 (ranked 67.5th percentile); 41 publications; 24.84 impact points.

Foreign languages:

English (fluent), German and French (basic).

Citations on international Who's who

Marquis Who's Who in the World, New Providence, NJ, from the 12-th edition, 1995.

List of publications of Giuseppe Arbia

1. Articles on Journals listed on Thomson ISI Journal Citation Reports

[123] "A micro spatial analysis of firm demography: the case of food stores in the area of Trento (Italy)" (with R. Cella, G. Espa and D. Giuliani), *Empirical Economics*, 48, 3 (2015), 923-937. IF = 0.614

[122] Spatio-temporal Clustering of Pharmaceutical and Medical Device Manufacturing Industry: A Geographical Micro-level Analysis. (with G. Espa, D. Giuliani and M. Dickson), *Regional Science and Urban Economics*, 49, 298-304, 2014. IF = 0.971

[121] Weighting Ripley's K-function to account for the firm dimension in the analysis of spatial concentration, (with G. Espa and D. Giuliani), *International Regional Science Review*, 3, 247-268, 2014. IF = 1.25737.

[120] Advances in Cross-Sectional and Panel Data Spatial Econometric Modeling, (with Christine Thomas), *Geographical Analysis*, 46, 2, 101-103, 2014, IF = 1.5

[119] Advances in the Statistical Modeling of Spatial Interaction Data (with Roberto Patuelli) *Journal of Geographical Systems*, 15, 3, 229-231, 2013. IF = 1.366.

[118] Effects of scale in spatial interaction models (with Francesca Petrarca) *Journal of Geographical Systems*, 15, 3, 249-264, 2013. IF = 1.366

[117] Testing isotropy in spatial econometric models, (with G. Espa and M. Bee) *Spatial Economic Analysis*, 8, 3, 228-240. 2013. IF = 1.375

[116] Conditional vs. unconditional industrial agglomeration: disentangling spatial dependence and spatial heterogeneity in the analysis of ICT firms distribution in Milan (Italy) (with G. Espa and D. Giuliani), *Journal of Geographical Systems*, 15, 31-50, 2013. IF = 1.366

[115] Frontiers in spatial econometrics modelling (with Enrique Lopez Bazo and Francesco Moscone), *Economic Modelling*, 29, 1, 1-2. 2012. IF = 0.699

[114] Clusters of firms on an inhomogeneous space: the case of high-tech industries in Milan in 2001 (with G. Espa, D. Giuliani and A. Mazzitelli), *Economic Modelling*, 29, 1, 3-11, 2012. IF 0.699

[113] A lustrum of SEA: Recent trends following the creation of the Spatial Econometrics Association (2007-2011), *Spatial Economic Analysis*, 6, 4, 377-395, 2011. IF = 1.375

[112] The Spatial Distribution of Economic Activities in Italy. A Sectorally Detailed Spatial Data Analysis using Local Labour Market Areas (with Laura De Dominicis and Henri De Groot) *Regional Studies*, 47, 3, 405-418, 2011. IF = 1.465

[111] Aggregation of regional economic time series with different spatial correlation structures (with G. Espa and M. Bee), *Geographical Analysis*, 43, 78-103. 2011, IF 1.5

[110] Advances in spatial econometrics (with Harry Kelejian), *Regional Science and Urban Economics*, 40, 5, 253-254, 2010, IF 1,628

[109] Detecting the existence of space-time clusters of firms (with Giuseppe Espa, Diego Giuliani and Andrea Mazzitelli), *Regional Science and Urban Economics*, 40, 5, 311-323, 2010, IF 1,628

- [108] Detecting negative spatial autocorrelation in georeferenced random variables (with Dan Griffith), *International Journal of Geographical Information Sciences*, 24, 3, 417-437, 2010, IF 1.613
- [107] Growth and convergence in a multi-regional model with space-time dynamics (with Elhorst JP and Piras G), *Geographical Analysis*, 42, 3, 338-355, 2010, IF 1.5
- [106] A new class of spatial Concentration measures (with G. Piras) *Computational Statistics and Data Analysis*, 53, 4471-4481, 2009, IF 1.304
- [105] Institutions and geography: empirical test of spatial growth models in European regions (with M. Battisti and G. Di Vaio), *Economic Modelling*, 27, 12-21, 2009, IF 0.588
- [104] Spatial dependence in the tails of air pollutant distributions: alternatives to the spatial correlogram (with Copetti, M. and Lafratta, G.), *Environmetrics*, 20, 3, 221-345, May 2009. IF 1,096
- [103] New spatial econometric techniques and applications in regional science (with Bernard Fingleton), *Papers in Regional Sciences*, 87, 3, 311-317, 2008. IF 1.541
- [102]. Does evidence on regional convergence depend on the estimation strategy ? Results from a sample of NUTS-2 European regions, 1977-2000. (with Le Gallo, J. and Piras, G), *Spatial Economic Analysis*, 3, 2, 209-224, June, 2008. IF 1.375
- [101]. A class of spatial econometric methods in the empirical analysis of clusters of firms in space, (with Espa, G. e Quah, D.), *Empirical Economics*, 34, 1, 81-103, 2008. IF 0.614
- [100] Introduction to the special issue on spatial econometrics, *Empirical Economics* (2008) 34:1. 4 (with B. Baltagi) IF 0.614
- [99] Nonlinear Regional Economic Dynamics: Continuous-Time Specification, Estimation and Stability Analysis (with Piras G. and Donaghy K.), *Journal of Geographical Systems*, 9, 4, 311-344, 2007. IF 1.278.
- [98]. Spatial Sampling Plans to Monitor the 3-D Spatial Distribution of Extremes in Soil Pollution Surveys (with Lafratta G., Simeoni C), *Computational Statistics and Data Analysis*, 51, 8, 4069-4082, 2007 IF 1.304
- [97] Testing the Stochastic Convergence of Italian Regions using panel data, (with M. Costantini) *Applied Economics Letters*, 2006, 13, 775-783. IF 0.227
- [96] Exploring non linear dependence in the tails of bivariate marginals of a random field+ (with G. Lafratta) *Geographical analysis*, 37, (4), 423-437. 2005 IF: 1.5
- [95]. Economic convergence or divergence? Modeling the interregional dynamics of EU regions, 1985-1999, (with J. H. P. Paelinck) *Geographical Systems*, 5, 291-314, 2004. IF 1.278.
- [94]. Spatial econometrics modelling of regional convergence in continuous time, (with J. H. P. Paelinck), *International Regional Science Review*, 26, 3, 342-362, 2003. IF: 1.257
- [93] Error propagation computing vegetation indices based on Landsat imagery+ (with R. Haining and D. Griffith, *Environmental and ecological statistic.*, Vol. 10, 2, 375-396, 2003. IF 0,868
- [92] Spatial sampling designs optimized under anisotropic superpopulation models+ (with G. Lafratta) *Journal of the Royal Statistical Society series c . Applied Statistics*, 51, 2, 2002, 223-234, IF: 1.253
- [91] The role of spatial effects in the empirical analysis of regional concentration+ *International Journal of Geographical Systems*, 3, 3, 271-281, 2001. IF 1.366

- [90] Modelling the geography of economic activities on a continuous space+ *Papers in Regional Sciences*, 80, 411-424, 2001; IF: 1.541
- [89] "Error propagation in raster GIS: adding and ratioing operations " (con Haining R. P. e Griffith D. A.), *Cartography & Geographical Information Science*, Vol. 26, pp. 297-315, 1999. IF =0.83.
- [88] Contextual classification in image analysis: an assessment of accuracy of ICM+ (with R. Benedetti and G. Espa), *Computational Statistics Data Analysis*, 30, 443-455, 1999. IF: 1.304
- [87] Error propagation modeling in raster GIS: overlay operations+ (with R. Haining and D. Griffith) *International Journal of Geographical Information Sciences*, Vol. 12, n. 2, 1998. IF: 1.613.
- [86] Evaluating and updating the sample design: the case of the concentration of SO₂ in Padua+ (with Lafratta G.) *Journal of Agricultural, Biological and Environmental Statistics*, 2, 4, 1997, 451-466, IF 1,235
- [85]. Effects of MAUP on image classification+ (with R. Benedetti e G. Espa) *Journal of Geographical Systems*, 3, 1996, 123-141, IF 1.366
- [84] "Heterogeneity of attribute sampling error in spatial data sets" (with D. Griffith e R. Haining), *Geographical Analysis*, vol.26, 4, October 1994, pagg. 300-320. IF: 1.5.
- [83] "The use of GIS in spatial surveys", *International Statistical Review*, 61, 2, Agosto, 1993, pagg. 339-359. IF: 0.718
- [82] "Error propagation through map operations" (with R. P. Haining), *Technometrics*, Vol. 35, 3, August, 1993, pagg. 293-305. IF: 1.434
- [81] "Integrating GIS and spatial data analysis: problems and possibilities", (with Goodchild, Haining, Wise and 11 more authors), *International Journal of Geographical Information Sciences*, 6, 5, pagg. 407-423, 1993. IF 1.613
- [80] "On second order non-stationarity in two-dimensional lattice processes", *Computational Statistics and Data Analysis*, 9, pagg. 147-160, North Holland, 1990. IF: 1.304

Number of impacted articles: 43
Total impact: 52.9
Average impact: 1.23

2. Articles on refereed books

- [79] Spatial concentration and dispersion of economic activities: microeconomic versus mesoeconomic approach (with G. Espa and D. Giuliani), in *Handbook of Research Methods and Applications in Economic Geography*, Charlie Karlsson, Martin Andersson and Therese Norman eds., Edward Elgar Publisher, Cheltenham, 135-157, 2015, ISBN 978 0 85793 266 2 (cased).
- [78] A class of spatial statistical methods in the empirical analysis of spatial clusters, (with G. Espa, G. e Quah, D.), in *Spatial Econometrics: methods and applications*, Arbia, G. and Baltagi, B. eds., reprint of the paper appeared on *Empirical Economics*, Springer-Verlag, ISBN 978-3-7908-2070-6, Heidelberg, 2009.
- [77] Modelling individual behaviour of firms in the study of spatial concentration+ (with Copetti M. and Diggle P.J.), in U. Fratesi L. and Senn (eds.) *Growth in Interconnected Territories:*

Innovation Dynamics, Local Factors and Agents, Springer-Verlag, 297-328, ISBN: 978-3-540-70923-7, 2008.

[76] "Uncertainty and error propagation in map analyses involving arithmetic and overlay operations: inventory and perspective" (with R. Haining e D. Griffith) in *Spatial accuracy assessment*, Kim Lowell and Annick Jaton (eds.), Ann Arbor Press, Chelsea, Michigan, ISBN 1-57504-119-7, 11-25, 1999.

[75] "Aggregation over time space and individuals in economic modelling: a generating mechanism approach", Capitolo 6 del volume *Continuous time econometrics*, G. Gandolfo ed., Chapman and Hall editori, 1992, ISBN 0-412-45020-8, Londra.

[74] "Statistical effects of spatial data transformations: a proposed general framework", in *Accuracy of spatial databases*, M. Goodchild e S. Gopal (eds.), Taylor & Francis, pagg. 249-259, ISBN 0-85066-847-6, Londra, 1989.

[73] "On the simulation of two-dimensional stationary stochastic processes: a comparison of different approaches", *Proceedings of the Seventh Symposium in Computational Statistics, Short Communications and posters*, De Antoni, Lauro and Rizzi (eds), Physica-Verlag editore, pagg. 17 - 18, Roma, 1986.

[72] "Problems in the estimation of the spatial autocorrelation function arising from the form of the weights matrix" in *Transformations through space and time*, D.Griffith and R.P. Haining (eds), Martinus Nijhoff Editore, pagg. 294-308, Dordrecht, ISBN 9024733626, 1986.

3. Books with international publishers

[71] A primer for Spatial Econometrics: with applications in R, texts in Econometrics, Palgrave Macmillan, 2014 (to appear).

[70] Spatial Econometrics: Models and Applications, (with B. Baltagi, eds.), Springer-Verlag, Heidelberg, ISBN 978-3-7908-2070-6, 2009.

[69] Spatial Econometrics: Statistical foundations and applications to regional convergence, Springer-Verlag, Berlin, ISBN 10-3-540- 32304-X, March, 2006.

[68] "Spatial data configuration in statistical analysis of regional economics and related problems", *Advanced Statistical Theory and Applied Econometrics*, Kluwer Academic Publisher: Dordrecht, The Netherlands, 1989, ISBN 0792302842, pp. xiv+ 256.

4. Articles on other refereed journals

[67] Pairwise likelihood inference for spatial regressions estimated on very large datasets, *Spatial Statistics*, 7, 21. 39, 2014

[66] A spatially explicit approach to the study of socio-demographic inequality in the spatial distribution of trees across Boston neighborhoods, (with Duncan, Kawachi, Kum, Aldstadt, Piras, Matthews, Castro, White and Williams), *Spatial Demography*, 2013, 1, 4.

[65] A Gaussian Markov random field approach to convergence analysis (with Luigi Ippoliti and Luca Romagnoli), *Spatial Statistics*, 6, 78-90, 2013.

- [64] Effects of MAUP on spatial econometrics models (with Francesca Petrarca), *Letters in Spatial and Resource Sciences*, 4, 173-185, 2011.
- [63]. Arbia, G. Convergence in per-capita GDP across EU-NUTS2 regions using panel data models extended to spatial autocorrelation effects", (with G. Piras); *Statistica*, 2007.
- [62] Alternative approaches to regional convergence exploiting both spatial and temporal information, *Estudios de Economía Aplicada*, 22(2): 429-448, 2005.
- [61] Spatial Dependence and Non-linearities in Regional Growth Behaviour in Italy, (with R. Basile), *Statistica*, LXV, 145-167, Bologna. 2005
- [60] Spatial correlation estimates based on satellite observations corrected with the prior knowledge on sensor devices technical characteristics, (with G. Lafratta) *Statistica*, LXIII, 2, 249-263, 2003, Bologna.
- [59] Bivariate Value-at-risk, *Statistica*, 2003, anno LXII, 2, 231-247.
- [58] Two critiques to the statistical measures of spatial concentration and regional convergence, *International Advances in Economic Research*, Volume 6, Number 3, August 2000.
- [57] Statistical modelling of archaeological sites as non stationary Cox processes and its use in forecasting, (with G. Espa), *Archeologia e Calcolatori*, Roma, 1996.
- [56] Forecasting statistical modelling of archeological site location, (with G. Espa), *Archeologia e Calcolatori*, Roma, 1996.
- [55] "The use of GIS in spatial and spatio-temporal surveys", (with M. Coli), *Bullettin of the International Statistical Institute*, Vol. 50, 3, 24, pagg. 1-28, Il Cairo, 1991.
- [54] "The dampening effect on high order spatial autocorrelation in irregular lattices", *Metron*, Volume XLVI, 1-4, pagg. 459-488, Roma, 1989.
- [53] "Sull'analisi di serie spaziali non stazionarie: un metodo basato sul ricampionamento", *Statistica*, 4, pagg. 553-562, 1989.
- [52] "Diseguaglianze territoriali", *Rassegna Economica*, 3, Anno LIII, pagg. 569-596, Ufficio Studi, Banco di Napoli, Napoli, Luglio-Settembre, 1989.
- [51] The modifiable areal unit problem and the spatial autocorrelation problem: towards a joint approach", *Metron*, Volume XLIV, 1-4, pagg. 391-407, Dicembre 1986, Roma.

5. Other publications

a) articles

- [50] Verso un approccio statistico al geomarketing: alcune linee guida ed un caso di studio (with G. Espa), *Quaderni di statistica e matematica applicata alle scienze economico-sociali*, Volume XVII, n. 1, Marzo 1995, pagg. 55-81., Marzo, 1995.
- [49] "Introduction: a bird's eye view of spatial data and applications", *Quaderni di statistica e matematica applicata alle scienze economico-sociali*, Volume XVI, n. 1-2, Novembre, 1994. pagg. 1-16
- [48] "Selection techniques in sampling spatial units", *Quaderni di statistica e matematica applicata alle scienze economico-sociali*, Volume XVI, n. 1-2, Novembre 1994. pagg. 81-91.

[47] "Metodi di ricampionamento nella analisi di immagini aeree e da satellite", (with R. Benedetti), *Quaderni di Statistica e Econometria*, Vol. XII, pagg. 143-152, Napoli, 1990.

[46] "Sulla verifica empirica di teorie economiche: serie storiche o serie spaziali", *Rassegna Di Statistiche del Lavoro*, Centro Studi Confindustria, **3**, Anno 40, pagg. 97-105, Roma, Settembre, 1989.

b) books

[45]. *Statistica economica territoriale+*, (with G. Espa), Cedam, Padova, Novembre 1996. pp. 250.

[44] *Analisi econometrica di dati spaziali+*, Quaderni di Statistica n. 3/96, Dipartimento metodi quantitativi e teoria economica, Università G. D'Annunzio di Pescara, Maggio 1996. pp. 100.

[43] *Appunti di Analisi Statistico-Economica Territoriale: Parte I+* (with G. Espa e N. Bartoli), CUSL Editrice, Padova, Gennaio 1996, pp. 184.

[42] *Esercizi di Statistica Economica+* CUSL Editrice, Padova, Luglio 1995, pp. 81.

c) contributions to edited books

[41] "Le relazioni degli aggregati economici nel tempo e nello spazio", Capitolo 19 del Volume "*Contabilita' Nazionale e Statistica economica*", (G. Alvaro), pagg. 883-958, Cacucci editore, Seconda edizione, Bari, 1995.

[40] "Recenti sviluppi nella modellistica spaziale", in *Metodi statistici per le analisi territoriali*, S. Zani (ed), Franco Angeli Editore, pagg. 193-217, Milano, 1993.

[39] Appendice metodologica al volume "*Integrazione e regionalizzazione nella CEE*", (G. Lizza), pagg. 98-105 Franco Angeli editore, Milano, 1992.

[38] "Le relazioni degli aggregati economici nel tempo e nello spazio", Capitolo 18 del Volume "*Contabilita' Nazionale e Statistica economica*", (G. Alvaro), pagg. 803-873, Cacucci editore, Bari, 1992.

[37] "L'uso e l'interpretazione di regressioni basate su dati territoriali nella modellistica economica", in *Sistemi spaziali approcci e metodologie*, M. Bielli ed A. Reggiani (eds), pagg. 57-72, Franco Angeli, Milano, 1991.

[36] "Sul metodo dei sottocampioni mobili per l'analisi di serie spaziali non stazionarie", with R. Benedetti), *Atti delle Giornate di Studio Su Analisi di dati territoriali: metodi tecnologie, applicazioni*, pagg. 11-21, Cacucci Editore, Bari, 1989.

[35]. "Un approccio statistico alla misura dell'accuratezza nei sistemi geografici informativi", *Atti delle Giornate di Studio Su Analisi di dati territoriali: metodi tecnologie, applicazioni*, pagg. 1-10, Cacucci Editore, Bari, 1989.

d) reviews

[34] Review del volume -Continuous time econometric models- , R. A. Bergstrom, *Journal of Applied Econometrics*, 1993.

e) edited issues

[33] Special issue of *Empirical Economics on Spatial Econometrics*, Co-edited with Badi Baltagi (expected 2014)

[32] Special issue of *Regional Science and Urban Economics on Health Econometrics*, Co-edited with Francesco Moscone and John Mullahy (expected 2014)

[31] Special issue of *Geographical Systems* on "Advances in spatial interaction modelling", Co-edited with Roberto Patuelli, 15, 3, 2014.

[30] Special issue of *Geographical Analysis* on "Spatial Econometrics", Co-edited with Christine Thomas, 46, 1, 2014.

[29] Special issue of *Economic modelling* on "Spatial Econometrics", Co-edited with Francesco Moscone and Enrique Lopez-Bazo (expected 2011)

[28] Special issue of *Spatial Economic Analysis*, in honour of Harry Kelejian, Co-edited with Ingmar Prucha (2013)

[27] Special issue of *Regional Studies and Urban Economics* on "Spatial Econometrics", Co-edited with Harry Kelejian, , 40, 5, 2010.

[26] Special issue of *Papers in Regional Science* on "Spatial Econometrics", Co-edited with Bernard Fingleton, Vol.87, 3, 2008.

[25] Special issue of *Empirical Economics* on "Spatial Econometrics", Co-edited with Badi Baltagi, Vol. 34, 1, 2008.

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[22] Spatial analysis of start-up health and pharmaceutical firm survival (with G. Espa and D. Giuliani) (submitted to Journal of the Royal Statistical Society-series A)

[21] Least quartic regression with applications in finance (submitted to Computational Statistics and Data Analysis)

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[20] "Analisi longitudinale dello sviluppo internazionale delle imprese laziali", **Banca Intesa**. Scientific responsibility: Matteo Caroli, 2008.

[19] "Misura della *environmental justice* nella distribuzione nel territorio di attività industriali a rischio: analisi congiunta dei fattori ambientali ed economici", **Ispesl**, Istituto per la prevenzione e la sicurezza sul lavoro, Roma, 2006.

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- [14] Costruzione di un GIS per il monitoraggio dell'efficacia nel territorio degli incentivi alle assunzioni e alla creazione di impresa, **Abruzzo Lavoro**, Pescara, 2002
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- [10] Metodi di spazializzazione dei dati per la stima delle rese agricole nelle celle AGROMET, Diritti d'autore ceduti a **Telespazio S. p. a.**, Roma , 1998
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