GIANFRANCO PIRAS
Associate Professor of Econometrics
Department of Economics
University "G.d'Annunzio"- Chieti - Pescara
Web: https://www.dec.unich.it/home-piras-gianfranco-7126
GitHub: https://github.com/gpiras
Google Scholar profile:
https://scholar.google.com/citations?user=eZQOvEgAAAAJ&hl=en

Current Position

Associate Professor of Econometrics, Department of Economics, University "G. d'Annunzio", Chieti - Pescara, Italy

Associate Professor of Economics, Department of Art and Sciences, The Catholic University of America, Washington, DC, USA

Other Affiliations

Faculty Affiliates, Regional Research Institute, West Virginia University, Morgantown, WV 26506-6825

Adjunct Professor, Division of Resource Management, West Virginia University, Morgantown, WV 26506-6825

Previous Positions

Interim Associate Professor of Economics, The Busch School of Business and Economics, The Catholic University of America, Washington, DC 20064

Visiting Assistant Professor of Economics, The Busch School of Business and Economics, The Catholic University of America, Washington, DC 20064

Research Assistant Professor, Regional Research Institute, West Virginia University, (Aug 2010 - May 2014)

Postdoctoral Research Associate, Department of City and Regional Planning, Cornell University (Dec 2009 - May 2010)

Postdoctoral Research Associate, GeoDa center Arizona State University (Dec 2008 - May 2009)

Assistant professor, IDEAR, Universidad Catolica del Norte, Antofagasta, Chile (Jul 2008- Nov 2008)

Post-Doctoral Fellow, Regional Economics Application Laboratory (REAL), University of Illinois at Urbana-Champaign (Aug 2006 - Jun 2008)

Research Fellow, University "G. d'Annunzio" of Chieti, Pescara, Italy (Aug 2005 - Jun 2006)

Research Assistant, Faculty of Economics, University "G. d'Annunzio", Pescara, Italy (Aug 2005 - Jun 2006)

Research Assistant, Faculty of Economics, LUISS University, Rome, Italy (Spring 2005)

Research Assistant, Faculty of Political Sciences, University of Rome La Sapienza, Rome, Italy (Aug 2004 - Jul 2005)

Research Assistant, Econometric Modelling, Institute for Studies and Economic Analysis (ISAE), Rome, Italy (Jun 2002 - Sep 2003)

Education

PhD in Econometrics and Empirical Economics, Tor Vergata University, Faculty of Economics, Rome (Italy), 2005

M.A. Economics, Tor Vergata University, Faculty of Economics, Rome (Italy), 2002

B.S. Economics, University "G. d'Annunzio" of Chieti, Pescara (Italy) Faculty of Economics, 2001

Awards and Honors

Fellow of the Spatial Econometrics Association.

2014 Regional Studies Association Best Paper Award for the paper: "Efficient GM estimation of a Cliff and Ord panel data model with random effects", *Spatial Economic Analysis*, 8(3): 370–388. 2013

Keynote speech at ENABER, Brazilian Association of Regional Science. Recife, Brazil, October 8-10, 2012

2009 Regional Studies Association Best Paper Award for the paper: "The European Regional Growth Process Revised", *Spatial Economic Analysis*, 3(1), 7–25. 2008 (with Dall'Erba S., and M. Percoco)

Publications

Articles in journals

1. "Spillover effects in spatial models: Generalizations and extensions". (with Kelejian H.H.), *Journal of Regional Sciences*, 60(3), 425–442. 2020.

2. "Impact Evaluation of Investments in the Appalachian Region: A Reappraisal", (with Sayago-Gomez J,T,, Jackson R. and Lacombe D.) *International Regional Science Review*, https://doi.org/10.1177/0160017617713822.

3. "Important overlooked IV's in spatial models", (with Kelejian H.H.) *Empirical Economics*, 55(1), 69–83. 2018.

4. "A *J*-test for dynamic panel model with fixed effects, and nonparametric spatial and time dependence", (with Kelejian H.H.) *Empirical Economics*. 51(4): 1581–1605. 2016.

5. "An extension of the *J*-test to a spatial panel data framework", (with Kelejian H.H.) *Journal of Applied Econometrics*, 31(2): 387–402. 2016.

6. "Comparing estimation methods for spatial econometrics", (with Bivand R.) *Journal of Statistical Software*, 63(18): 1–36. 2015

7. "Estimation of spatial models with endogenous weighting matrices, and an application to a demand model for cigarette", (with Kelejian H.H.) *Regional Science and Urban Economics*, 46, 140–149. 2014

8. "Finite sample properties of pre-test estimators of spatial models", (with Prucha I.R.) *Regional Science and Urban Economics*, 46, 103–115. 2014

9. "Impact estimates for static spatial panel data models in R" *Letters in Spatial and Resource Sciences*, 7, 213–223. 2014

10. "A spatially explicit approach to the study of socio-demographic disparities in the spatial distribution of trees across Boston neighborhoods" (with Duncan D., Kawachi I., Kum S., Aldstadt J., Matthews S.A., Arbia G., Castro M.C., White K., Williams D.R.), *Spatial Demography*, 1(4): 1–29. 2013

11. "Efficient GM estimation of a Cliff and Ord panel data model with random effects", *Spatial Economic Analysis*, 8(3): 370–388. 2013

12. "The Built Environment and Depressive Symptoms among Urban Youth: A Spatial Regression Study" (with Duncan D., Johnson R., Dunn E.C., Melly S.J., and Molnar B.E.) *Spatial and Spatio-temporal Epidemiology*, 5:11-25. 2013

13. "splm: spatial panel data models in R", (with Millo G.) *Journal of Statistical Software*, 47(1): 1-38. 2012

14. "Specialization, R&D and productivity growth: Evidence from EU regions", *Annals of Regional Science*, 49(1): 35-51. 2012 (with Patricio A. and Postiglione P.)

15. "The effect of trade on regional income equality in Mexico", *Regional Science and Urban Economics*, 42(1-2): 286-302. 2012 (with Baylis K. and Garduno-Rivera R.)

16. "On the parameter space in higher order spatial econometrics model", *Regional Science and Urban Economics*, 42(1-2): 211-220. 2012 (with Elhorst J.P. and Lacombe D.)

17. "The Price of a Home's Location: An Empirical Comparison of Recent Spatial Estimators", *Journal of Geographical Systems* 14(3): 319-356. 2012 (with Lozano-Gracia N. and Koschinsky J.)

18. "Spatial J-test: Some Monte Carlo evidence", *Statistics and Computing*, 22(1) 169-183. 2012 (with Lozano-Gracia N.)

19. "Spatial approaches to panel data in Agricultural Economics", *Journal of Agricultural and Applied Economics*, 43(3), 325-338. 2012 (with Baylis K. and Paulson N.D.)

20. "A modification and extension of Kelejian's spatial J-test", *Regional Science and Urban Economics*, 41: 281-292. 2011 (with Kelejian H.H.)

21. "sphet: spatial models with heteroskedastic innovations in R" *Journal of Statistical Software*, 35 (1), 1–21. 2010

22. "Growth and convergence in a Multi-regional model with space-time dynamics", *Geographical Analysis*, 42, 338–355. 2010 (with Arbia G. and Elhorst J.P.)

23. "Journey to Safety: Conflict-Driven Migration Flows in Colombia", *International Regional Science Review*, 33, 157–180. 2010 (with Lozano-Gracia N. Ibañez A. and Hewings G.J.D.)

24. "A new class of Spatial Concentration Measures", *Computational Statistics and Data Analysis*, 53 (12), 4471–4481. 2009 (with Arbia G.)

25. "Service Industry and Cumulative Growth in the Regions of Europe", *Entrepreneurship and Regional Development*, 21(4), 333–349. 2009 (with Dall'Erba S. and Percoco M.)

26. "Does evidence on Regional Economic Convergence Depend on the Estimation Strategy? Outcomes from Analysis of a Set of NUTS2 EU Regions", *Spatial Economic Analysis*, 3(2), 209–224. 2008 (with Arbia G. and Le Gallo J.)

27. "The European Regional Growth Process Revised", *Spatial Economic Analysis*, 3(1), 7–25. 2008 (with Dall'Erba S. and Percoco M.)

28. "Non linear Regional Economics Dynamics: Continuous-Time Specification, Estimation and Stability Analysis", *Journal of Geographical Systems*, 9(4), 311–419. 2007 (with Arbia G. and Donaghy K.P.)

29. "Convergence in per-capita GDP across EU NUTS2 regions using panel data models extended to spatial autocorrelation effects", *Statistica* 2007 (with Arbia G.)

Chapters in books

1. "Looking ahead: a review of more advanced topics in spatial econometrics" in *Statistical Foundations of Spatial Econometrics: Application to regional Convergence*, (ed. Arbia G.), Springer Verlag, Berlin. 2006

2. "Appendix: A review of the available software for Spatial Econometric Analysis" in *Statistical Foundations of Spatial Econometrics: Application to regional Convergence*, (ed. Arbia G.), Springer Verlag, Berlin. 2006

Papers under revision and working papers

1. "A review of software for spatial econometrics in R" (with R. Bivand, G. Millo)

2. "Some important addition to the R library sphet" (with P. Postiglione).

3. "Measurement errors in the spatial weighting matrix". (with H.H. Kelejian)

4. "Spatial limited dependent variables in R". (with M.Sarrias)

5. "A recursive spatial regression model to handle streaming of geo-located data". (with C.Ghiringhelli, G. Arbia, A. Mira)

6. "Spillover effects in spatial models: New efficient and simpler calculations". (with Kelejian H.H.)

7. "On the Small Sample Properties of Spatial Estimators After Weight Matrix Selection". (with Prucha I.R.)

8. "Location Choice under Spatial Price Interdependency" (with Lozano-Gracia N. and Prucha I.R.)

9. "On the application of bootstrap methods in spatial econometric models", (with Lozano- Gracia N.)

10. "LM tests for higher order spatial econometrics models", (with Arbia G.)

Books

1. "Spatial Econometrics". (with Kelejian H.H.) Academic Press, Paperback ISBN: 9780128133873

Other working papers

1. "Using Spatial Panel Data in Modelling Regional Growth and Convergence", (with Arbia G. and Basile R.), ISAE Working Papers 55, ISAE - Institute for Studies and Economic Analyses - (Rome, ITALY)

2. "Analyzing Intra-Distribution Dynamics: A Reappraisal", (with Basile R. and Arbia G.), ERSA conference papers ersa06p262, European Regional Science Association

3. "The relationship between Regional Growth and Regional Inequality in EU and transition countries - a Spatial Econometric Approach", (with Arbia G. and De Dominicis L.), ERSA conference papers ersa05p168, European Regional Science Association

4. "Convergence in per-capita GDP across European regions using panel data models extended to spatial autocorrelation effects", (with Arbia G.) ISAE Working Papers 51, ISAE - Institute for Studies and Economic Analyses - (Rome, ITALY)

Editorial Board and Reviewing Activities

Associate Editor, *Journal of Spatial Econometrics*

Editorial Board Member, *Letter in Spatial and Resource Sciences.*

Guest Editor (jointly with Giuseppe Arbia and Ingmar Prucha) of *The Review of Regional Studies* for a special issue entitled: Advances in Spatial Econometrics

Referee for: *Journal of Econometrics, Econometric Review, Journal of Applied Econometrics, Journal of Economic Geography, Spatial Statistics, Annals of Regional Sciences, The R journal, Agricultural Economics, Economic Modeling, Environment and Planning, Growth and Change, Journal of Economic Dynamics and Control, Journal of Public Economics, Spatial Demography, Papers in Regional Science, International Regional Science Review, Empirical Economics, Regional Science and Urban Economics, Journal of Geographical Systems, Italian Journal of Regional Sciences, Spatial Economic Analysis, Letters in spatial and resource sciences, Network and Spatial Economics, Geografiska Annaler Series B, Emerging Markets Finance and Trade, Real Estate Economics, Statistics and Computing, Scandinavian Journal of Economics*

Professional Affiliations

Spatial Econometrics Association
Regional Science Association International
Western Regional Science Association
Urban Economics Association
Association of American Geographers

Teaching

The Catholic University of America:

ECON 363 Principles of Econometrics, Spring 2019
ECON 223 Statistics for Business and Economics, Spring 2019
ECON 363 Principles of Econometrics, Fall 2018
ECON 223 Statistics for Business and Economics, Fall 2018

ECON 363 Principles of Econometrics, Spring 2018
ECON 223 Statistics for Business and Economics, Spring 2018
ECON 363 Principles of Econometrics, Fall 2017
ECON 223 Statistics for Business and Economics, Fall 2017
ECON 223 Statistics for Business and Economics, Spring 2017
ECON 223 Statistics for Business and Economics, Fall 2016
ECON 102 Principle of Microeconomics, Fall 2016
IEDM/P 543 Applied Econometrics I, Spring 2016
IEDM/P 572 Advanced Microeconomics, Spring 2016
IEDM/P 543 Applied Econometrics I, Fall 2015
IEDM/P 562 Survey Design, Fall 2015
IEDM/P 543 Applied Econometrics I, Spring 2015
ECON 223 Statistics for Business and Economics, Spring 2015
IEDM/P 543 Applied Econometrics I, Fall 2014
IEDM/P 562 Survey Design, Fall 2014

Other courses:

Introduction to Spatial Econometrics, Spatial Econometrics Advanced Institute, Rome, Summer 2018.

Spatial Econometrics, UNAM, Mexico City, Mexico, Summer 2018.

Spatial Econometrics, Capital University of Beijing, China, Summer 2017.

Regional Research Institute Summer Courses in Spatial Econometrics, West Virginia University, Summer 2011, 2012, 2013, 2016, 2019.

Spatial Econometrics Advanced Institute, Computer Labs Spatial Econometrics II, 2016

Spatial Econometrics Advanced Institute, Computer Labs Spatial Econometrics II, 2015

Spatial Econometrics Advanced Institute, Computer Labs Spatial Econometrics I, Spatial Econometrics II, 2012

Spatial Econometrics Advanced Institute, Computer Labs Spatial Econometrics I, Spatial Econometrics II, Spatial Panel Data Econometrics, 2010

Spatial Econometrics Advanced Institute, Computer Labs Spatial Econometrics I, Spatial Econometrics II, Spatial Panel Data Econometrics, 2009

Spatial Econometrics Advanced Institute, Computer Labs Spatial Econometrics I, Spatial Econometrics II, Spatial Panel Data Econometrics, 2008

Statistics, University of Chieti, Spring 2008 **Advanced Statistics,** LUISS University of Rome, Spring 2006

Instructor: Dr. Giuseppe Arbia **Statistics,** University of Rome "La Sapienza", Spring 2005

Statistics, University of Chieti, Spring 2004

Conference and Seminars (partial list)

- 11th World conference of the spatial econometrics association, Vienna, Austria;

- 10th World conference of the spatial econometrics association, Rome, Italy;

- 9th World conference of the spatial econometrics association, Zurich, Switzerland;

- 8th World conference of the spatial econometrics association, Zurich, Switzerland;

- 7th World conference of the spatial econometrics association, Washington, DC;

- 6th World conference of the spatial econometrics association, Salvador, Brazil;

- 5th World conference of the spatial econometrics association, Toulouse, France;

- 2nd World conference of the spatial econometrics association; New York, NY;

- 1st World conference of the spatial econometrics association, Cambridge, UK;

- 64th Annual North American Meetings of the Regional Sciences Association International, Vancouver, Canada;

- 63rd Annual North American Meetings of the Regional Sciences Association International, Minneapolis, MN;
- 62nd Annual North American Meetings of the Regional Sciences Association International, Portland, OR;
- 61th Annual North American Meetings of the Regional Sciences Association International, Washington, DC;
- 60th Annual North American Meetings of the Regional Sciences Association International, Atlanta, GA;
- 59th Annual North American Meetings of the Regional Sciences Association International, Ottawa, Canada;
- 58th Annual North American Meetings of the Regional Sciences Association International, Miami, FL;
- 57th Annual North American Meetings of the Regional Sciences Association International, Denver, CO;
- 55th Annual North American Meetings of the Regional Sciences Association International, New York, NY;
- 54rd Annual North American Meetings of the Regional Sciences Association International, Savannah, GA;
- 53rd Annual North American Meetings of the Regional Sciences Association International, Toronto, Canada;
- 52nd Annual North American Meetings of the Regional Sciences Association International, Las Vegas, NV;

- 51th Southern Regional Sciences Association Meeting, Charlotte, NC;
- 50th Southern Regional Sciences Association Meeting, New Orleans, LA;
- 49th Southern Regional Sciences Association Meeting, Arlington, VA;

- 51st Conference of the Western Regional Sciences Association, Kauai, HA;
- 46th Conference of the Western Regional Sciences Association, Newport Beach, CA;
- 44th Conference of the Western Regional Sciences Association, San Diego, CA;

- 45th European Congress of the European Regional Sciences Association (ERSA), Free University, Amsterdam, The Netherlands;
- 44th European Congress of the European Regional Sciences Association (ERSA), Region and Fiscal Federalism, University of Porto, Portugal;

- Workshop on Spatial Econometrics, Zurich, Switzerland;
- Federal Reserve Board, Washington, DC;
- Federal Reserve Bank, Richmond, VA;
- RRI Seminar Series, West Virginia University, Morgantown, WV;
- Cornell University, Department of City and Regional Planning, Ithaca, NY;
- Purdue University, Department of Agricultural Economics, Purdue, IN;
- Universidad Catolica del Norte, Antofagasta, Chile;
- REAL Seminar Series, University of Illinois at Urbana-Champaign, Urbana, IL;
- University of North Carolina at Charlotte, Department of Geography, Charlotte, NC;
- REAL Seminar Series, University of Illinois at Urbana-Champaign, Urbana, IL;
- Workshop on Spatial Econometrics, Kiel Institute for World Economics, Kiel, Germany;
- 9th Jean Paelinck Seminar, University of Zaragoza, Zaragoza, Spain.
- First Jean Paelinck Seminar, University of Zaragoza, Zaragoza, Spain

Software

R, Matlab, Stata, Arch-GIS, Latex, Python

sphet:

An R package for estimating and testing spatial models with heteroskedastic innovations. It implements recent generalized moments estimators and semiparametric methods for the estimation of the coefficients variance-covariance matrix. A paper that contains a general description of sphet is available from the Journal of Statistical Software website.

http://cran.r-project.org/web/packages/sphet/index.html

splm:

An R package for estimating and testing spatial panel data models. It considers the implementation of both maximum likelihood and generalized moments estimators in the context of fixed as well as random effects spatial panel data models. A paper that contains a general description of splm is available from the Journal of Statistical Software website.

http://r-forge.r-project.org/projects/splm/

Languages

Italian (native), English, Spanish

Pescara, Italy
November 10, 2020