Giovanni Millo

Curriculum vitae

Working experience and current position

9/1997 - 10/2021	Researcher at the Research Department of Assicurazioni Generali S.p.A, now Insurance and AM Research at Generali Investments.
10/2014 - 10/2021	Adjunct professor of Financial Econometrics at DEAMS, University of Trieste
10/2018 - 10/2021	Adjunct professor of Business Statistics at DEAMS, University of Trieste.
10/2021 - 11/2023	Tenure-tracked researcher (RTDB) in Economic Statistics at DEAMS, University of Trieste.
Since 12/2023	Associate professor (tenured) in Economic Statistics at DEAMS, University of Trieste.

Awards for the scientific activity

6/2023	National Scientific Habilitation for full professorship (1st tier): • Economic Statistics (13/D2)
7/2017 - 10/2018	National Scientific Habilitation for associate professorship (2nd tier): • Economic Statistics (13/D2) • Econometrics (13/A5) • Applied Economics (13/A4)
9/2007	PhD Scolarship awarded by the University of Trieste
8/1997	Prize in memory of prof. Mario Strudthoff for the best dissertation with mathematical content, University of Trieste

Research interests

Panel Data Econometrics; Spatial Econometrics; Computational Econometrics and Statistics; Insurance Economics.

Consultancy activities

Member of the Panel of Experts of the European Commission; recipient of a 10-months contract for consultancy in the assessment of health impacts and costs attributable to air pollution in urban areas in the Balkans.

Education

4/2010	PhD in Methods and Models for Economics, Università di Trieste Dissertation: "Some Economic Aspects of Insurance" Advisor: Gaetano Carmeci
8/1997	Laurea in Economics Università di Trieste Dissertation: "Bayesian Inference in Criminal Trials" Advisor: Silvano Holzer Final grade: 110/110 cum Laude

Further Education – Short courses and Schools

3/2019	"Panel Data for Banking Sector Analysts", Florence School of Banking and Finance (European University Institute)
5/2010	School on Causal Inference, Università di Firenze
5/2009	Cemmap course "Panel Time Series", London (UK) May 2009
6/2006	Spatial Econometrics Advanced Institute (2nd week), Università La Sapienza, Roma
9/2005	Post-graduate school in Econometrics (Time Series), CIDE, Bertinoro (Italy)
6/2004	Post-graduate school in Econometrics (Macroeconometrics), CIDE, Bertinoro (Italy)
4/2003	Easter School in Econometrics, Nuffield College, Oxford (UK)
9/2002	Post-graduate school in Econometrics (Panel Data), CIDE, Bertinoro (Italy)

Publications

Articles in Refereed Journals

1. MILLO G. (2025). Specifying spatial effects in panel data: Locally robust vs. conditional tests. SPATIAL STATISTICS 70 (100934), ISSN: 2211-6753, https://doi.org/10.1016/j.spasta.2025.100934

2. MILLO G. (2025). Empirical behaviour of Anselin et al.'s locally robust LM tests for spatial dependence in a panel data setting. REGIONAL SCIENCE AND URBAN ECONOMICS 112 (104106), ISSN: 0166-0462, https://doi.org/10.1016/j.regsciurbeco.2025.104106

3. MILLO, G. (2024). The Cost of Borrowing as a Limiting Factor of Non-Life Insurance Development: The Italian Case. RISKS 12 (12), EISSN 2227-9091, https://doi.org/10.3390/risks12120189

4. MILLO, G. (2024). An Ad Hoc Procedure for Testing Serial Correlation in Spatial Fixed-Effects Panels. MATHEMATICS 12 (10), 1475, ISSN: 2227-7390, doi: https://doi.org/10.3390/math12101475

5. Belis, C.A., Matkovic V., Ballocci M., Jevtic M., MILLO G., Mata E. and Van Dingenen, R. (2023). Assessment of health impacts and costs attributable to air pollution in urban areas using two different approaches. A case study in the Western Balkans. ENVIRONMENT INTERNATIONAL 182, December 2023, 108347, ISSN: 1873-6750, doi: https://doi.org/10.1016/j.envint.2023.108347

6. MILLO, G. (2022). The Generalized Spatial Random Effects Model in R. JOURNAL OF SPATIAL ECONOMETRICS 3 (1), p. 1-18, ISSN: 2662-298X, doi: https://doi.org/10.1007/s43071-022-00024-9

7. Bivand, R., MILLO, G. and Piras, G. (2021). A Review of Software for Spatial Econometrics in R. MATHEMATICS 2021, 9 (11), 1276, ISSN: 2227-7390, doi: https://doi.org/10.3390/math9111276

8. Carmeci G, Cavallini P. and MILLO, G. (2020). Are funding of pensions and economic growth directly linked? New empirical results for some OECD countries. CZECH JOURNAL OF ECONOMICS AND FINANCE 70 (3), p.244-261

9. MILLO G., (2019). Private returns to R&D in the presence of spillovers, revisited. JOURNAL OF APPLIED ECONOMETRICS 34 (1), p. 155-159, ISSN: 0883-7252, doi: https://doi.org/10.1002/jae.2662

10. MILLO G., (2017). Robust standard error estimators for panel models: A unifying approach. JOURNAL OF STATISTICAL SOFTWARE 82 (3), p. 1-27, ISSN: 1548-7660, doi: 10.18637/jss.v082.i03

11. MILLO G., (2017). A simple randomization test for spatial correlation in the presence of common factors and serial correlation. REGIONAL SCIENCE AND URBAN ECONOMICS 66, p. 28-38, ISSN: 0166-0462 doi: 10.1016/j.regsciurbeco.2017.05.004

12. MILLO G., (2016). The S-curve and reality. GENEVA PAPERS ON RISK AND INSURANCE – ISSUES AND PRACTICE 41 (4), p. 608-625, ISSN: 0022-4367 doi:10.1057/s41288-016-0003-6

13. MILLO G., (2016). The income elasticity of non-life insurance: a reassessment. JOURNAL OF RISK AND INSURANCE 83 (2), 335-362, ISSN: 0022-4367 doi: 10.1111/jori.12051

14. MILLO G., (2015). Narrow replication of 'A spatio-temporal model of house prices in the USA' using R. JOURNAL OF APPLIED ECONOMETRICS 30 (4), p. 703-704 ISSN: 0883-7252, doi: 10.1002/jae.2424

15. MILLO G., Carmeci G (2015). A sub-regional panel data analysis of life insurance consumption in Italy. JOURNAL OF RISK AND INSURANCE 82 (2), p. 317-340, ISSN: 0022-4367 , DOI: 10.1111/jori.12023

16. MILLO G. (2014). Maximum likelihood estimation of spatially and serially correlated panels with random effects. COMPUTATIONAL STATISTICS & DATA ANALYSIS 71, 914-933, ISSN: 0167-9473, doi: 10.1016/j.csda.2013.07.024

17. MILLO G., Piras G (2012). splm: Spatial Panel Data Models in R. JOURNAL OF STATISTICAL SOFTWARE, vol. 47; p. 1-38, ISSN: 1548-7660

18. MILLO G., Carmeci G. (2011). Non-life insurance consumption in Italy: a sub-regional panel data analysis. JOURNAL OF GEOGRAPHICAL SYSTEMS, vol. Volume 13, Issue 3 (2011); p. 273-298, ISSN: 1435-5930, doi: 10.1007/s10109-010-0125-5

19. MILLO G., Pasini G (2010). Does Social Capital Reduce Moral Hazard? A Network Model for Non-Life Insurance Demand . FISCAL STUDIES, vol. 31; p. 341-372, ISSN: 0143-5671, doi: 10.1111/j.1475-5890.2010.00118.x

20. Croissant Y, MILLO G. (2008). Panel Data Econometrics in R: the plm Package. JOURNAL OF STATISTICAL SOFTWARE, vol. 27; p. 1-43, ISSN: 1548-7660

Books

1. Croissant Y, MILLO G. (2018). Panel Data Econometrics with R. Wiley, Chichester (ISBN: 9781118949160)

Chapters in books

1. MILLO, G. (2021). Robust Inference in Panel Data Microeconometrics, Using R. p. 564-595, *Handbook of Research Methods and Applications in Empirical Microeconomics*, Edited by Nigar Hashimzade, Michael A. Thornton, Edward Elgar Publishing, ISBN: 978-1-78897-647-3

2. MILLO G., Carmeci G (2012). Insurance in Italy: A Spatial Perspective . *Geographic Information Analysis for Sustainable Development and Economic Planning: New Technologies*. p. 158-178, Hershey PA: Information Science Reference (an imprint of IGI G, ISBN/ISSN: 978-1-4666-1926-5, doi: 10.4018/978-1-4666-1924-1.ch011 3

Keynote speaker

- Workshop "Advances in Spatial and Network Modelling for Policy Making", 29-30 May 2025, Sapienza University of Rome, Italy (Keynote speakers: Luisa Corrado and Giovanni Millo)

- IV Congreso & XV Jornadas de Usuarios de R, 5-7 November 2025, Universitat Politecnica de Valencia (ES) (Keynote speaker: Giovanni Millo)

Invited seminars

- Spatial econometrics of panel data, University of Split (HR), 2024
- Cross-sectional and spatial dependence in panels, University of Nagoya (JP), 2021
- Specifying spatial effects in panel data: Robust vs. conditional tests, University of Venice at Ca' Foscari, 2021
- Estimation of spatial panel data models with R, Universidad Internacional de Valencia – VIU (ES), 2018
- A simple randomization test for spatial dependence in the presence of common factors, University of Ferrara 2016
- Cross-sectional and spatial dependence in panels with R, University of Split (HR) 2016
- Long-run regional equilibria in a large motor insurance market, University of Pisa 2015
- Where panel time series meet spatial panels: two studies in R-eplication, University of Pisa 2014
- Frontiers in spatial panels, FUDS/School of Advanced Social Studies (Ljubljana/Nova Gorica, Slovenia) Winter camp, Piran (SI) 2013
- Cross-sectional and spatial dependence in panels with R, Università di Pisa 2013
- Cross-sectional and spatial dependence in panels with R, University of Innsbruck (AT) 2012

Conference Presentations

- Jornadas de Usuarios de R (Keynote speaker), Valencia 2025
- Applied Statistics Conference, Koper 2025
- International Association for Applied Econometrics, Torino 2025
- EduFin25: Financial education workshop, Milano 2025
- Advances in Spatial and Network Modelling for Policy Making (Keynote speaker), Roma 2025
- Applied Statistics Conference, Koper 2024
- Signal Extraction Conference (Complexity session, invited), Lyon 2024
- R.S.A Società Italiana degli Economisti, Torino 2022
- Spatial Econometrics Workshop, Lille 2022

- Applied Statistics Conference, Bled 2018
- Applied Statistics Conference, Bled 2017
- IVASS Conference on Insurance Research, Roma 2017
- Italian Congress of Econometrics and Empirical Economics (ICEEE), Messina 2017
- R.S.A Società Italiana degli Economisti, Milano 2016
- C.S.A. Associazione Italiana di Scienze Regionali, Ancona 2016
- Spatial Econometrics Association, X World Conference, Roma 2016
- Italian Law and Economics Society, Napoli 2015
- Applied Statistics Conference, Bled 2015
- World Risk and Insurance Economics Congress, Muenchen 2015
- International Workshop on Spatial Econometrics and Statistics, Paris 2015
- ERCIM WG Conference on Computational and Methodological Statistics, Pisa 2014
- Applied Statistics Conference, Bled 2014
- European Group of Risk and Insurance Economists (EGRIE), St. Gallen 2014
- Mathematical and Actuarial Methods in Finance (MAF) 2014, Salerno
- R.S.A Società Italiana degli Economisti, Bologna 2013
- Applied Statistics Conference, Bled 2013
- 19th International Panel Data Conference, London 2013
- Italian Congress of Econometrics and Empirical Economics (ICEEE), Genova 2013
- Applied Statistics Conference, Bled 2012
- Applied Statistics Conference, Bled 2011
- Conference in honour of prof. Hashem Pesaran, Cambridge 2011
- Computational and Financial Econometrics (CFE), London 2010
- Italian Law and Economics Society, Bolzano 2010
- Applied Statistics Conference, Bled 2010
- European Regional Science Association (ERSA), Jonkoping 2010
- Mathematical and Actuarial Methods in Finance (MAF) 2010, Ravello
- Applied Statistics Conference, Bled 2009
- UseR! 2009, Rennes 2009
- Italian Congress of Econometrics and Empirical Economics (ICEEE), Ancona 2009
- Applied Statistics Conference, Bled 2008
- European Regional Science Association (ERSA), Liverpool 2008
- UseR! 2008, Dortmund 2008
- European Group of Risk and Insurance Economists (EGRIE), Cologne 2007

- Spatial Econometrics Association, II World Conference, Cambridge 2007
- Reciprocity Conference, Verbania 2007
- Italian Congress of Econometrics and Empirical Economics (ICEEE), Rimini 2007
- UseR! 2006, Vienna 2006
- Robust Statistics Conference, Treviso 2006

Academic Service

Editorial activity	2020 – Guest co-editor, *Czech Journal of Economics and Finance; special issue 70 (3)*, BANK AND FISCAL STABILITY IN EUROPE 2022 – Guest co-editor, *Czech Journal of Economics and Finance; special issue* 2024 – Guest co-editor, *Czech Journal of Economics and Finance; special issue*
Referee for	Annals of Regional Science, Astin Bulletin, Computational Statistics, Econometrics, Economic and Business Review, Economic Modelling, Empirical Economics, Energy Economics, Frontiers in Physics, Geneva Papers on Risk and Insurance, International Journal of Enviornmental Research and Public Health, International Regional Science Review, International Review of Economics and Finance, Journal of Applied Statistics, Journal of Cooperative Organization and Management, Journal of Spatial Econometrics, Journal of Statistical Software, Journal of the Royal Statistical Society A, Metodoloski Zvezki, North American Actuarial Journal, Papers in Regional Science, The Polish Statistician, Regional Science and Urban Economics, Regional Studies, Review of Regional Science, Risks, The R Journal, The Service Industries Journal, Spatial Economic Analysis, Spatial Statistics, Statistical Methods and Applications, Sustainability, Territory Politics Governance .

Teaching experience

Undergraduate

Financial Econometrics	45h course, BSc in Economics at the University of Trieste, 2014/15, 2015/16, 2016/17, 2017/18, 2018/19, 2019/2020, 2020/2021 and 2024/2025
Time Series	45h course, BSc in Statistics at the University of Trieste,

	2021/2022, 2022/2023, 2023/2024 and 2024/2025
Graduate	
Business Statistics	45h course, MSc in Management at the University of Trieste, 2018/19, 2019/2020, 2020/2021, 2021/2022, 2022/2023 and 2023/2024
Statistical Methods	30h course, MSc in Economics at the University of Trieste, 2021/2022, 2022/2023, 2023/2024 and 2024/2025
Panel Data Econometrics	Scuola Superiore Sant'Anna, Pisa 2014, 2015, 2016, 2017, 2018, 2022, 2023, 2024; Master in Economics:, 6-8h
PhD level	Spatial Econometrics Advanced Institute, Rome 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2023: IV week - Practicals on spatial panels with R, 10h
	University of Copenhagen, Panel Data with R, 40h course for PhD students (joint with Yves Croissant and Geraldine Henningsen)

(Last update: November 2025)