
Federica Galli

Updated December 4, 2025

Place and Date of Birth: Cesena (FC), 17/05/1995

Residence: Rimini (RN), Italy

Affiliation: University of Bologna

Website: www.unibo.it/sitoweb/federica.galli14/en

Email: federica.galli14@unibo.it

Current Position: Researcher in Tenure Track L. 79/2022

Research Interests

Analysis of Productivity and Efficiency - Spatial Econometrics - Statistics for Regional Sciences - Impact Evaluation - Expenditure Choices and Subjective Well-Being - Tourism and Cultural Economics

Current Academic Position

-December 2025 - Present: Researcher in Tenure Track L. 79/2022, STAT-02/A Economic Statistics, Department of Statistical Sciences "Paolo Fortunati", University of Bologna.

Previous Academic Positions

- November 2023 - November 2025: Post-Doctoral Research Fellow, Project: "*Subjective well-being, consumption behaviour and social cohesion over crises and across territories*", Department of Statistical Sciences "Paolo Fortunati", University of Bologna.

- November 2022 - October 2023: Post-Doctoral Research Fellow, Project: "*Statistical methods for research assessment*", Department of Statistical Sciences "Paolo Fortunati", University of Bologna.

Academic Degrees and Qualifications

- March 7, 2025: National Scientific Qualification for Associate Professor in 13/D2, Economic Statistics.

- April 6, 2023: PhD in Statistical Sciences, Department of Statistical Sciences "Paolo Fortunati", University of Bologna, Thesis: "*Modelling spillover effects in spatial stochastic frontier analysis*".

- July 12, 2019: Master Degree in Statistica, Economia e Impresa, Department of Statistical Sciences "Paolo Fortunati", University of Bologna, Thesis: "*Italian outbound tourists: tourism expenditure and satisfaction*", Grade: 110/110 cum laude.

- July 14, 2017: Bachelor's Degree in Finanza, Assicurazioni e Impresa, Department of Statistical Sciences "Paolo Fortunati", University of Bologna, Rimini Campus, Thesis: "*Scelte di viaggio, felicità e spesa dei turisti italiani all'estero*", Grade: 110/110 cum laude.

Visiting Positions

- September 19 - December 19, 2022: Visiting Scholar, INRAE, l'Institut Agro, Université de Bourgogne Franche-Comté, Dijon, France.
Reference Person: Prof. Julie Le Gallo

Publications

Papers in Refereed International Journals

- Galli, F., J.A. Piedra-Peña, M.L. Breuillé, and J. Le Gallo. (in press) "Is compulsory inter-municipal cooperation an efficiency booster?". *Regional Science and Urban Economics*. <https://doi.org/10.1016/j.regsciurbeco.2025.104185>
- Emili, S. and F. Galli (in press). "A simultaneous system of dynamic spatial stochastic frontier models with dependent error components and inefficiency determinants". *Spatial Statistics*. <https://doi.org/10.1016/j.spasta.2025.100947>
- Du, K., F. Galli and L. Wang. (in press) "spsfe: A Stata package to estimate spatial stochastic frontier models with endogenous variables". *Journal of Statistical Software*.
- Bernini, C., S. Emili and F. Galli (in press). "Experienced utility, Engel curves and Expenditure choices". *The Review of Economics and Statistics*. <https://doi.org/10.1162/rest.a.283>
- Emili, S. and F. Galli. (2025) "Modelling spatio-temporal dynamics in multi-output stochastic frontiers for the European agribusiness industry". *Journal of Agricultural, Biological and Environmental Statistics* 30(2), 540-575. <https://doi.org/10.1007/s13253-025-00680-y>
- Galli, F. and F.P. Greco. (2025) "Ranking Departments based on research quality: a statistical evaluation of the ISPD indicator". *Scientometrics* 130, 705-725. <https://doi.org/10.1007/s11192-025-05240-2>
- Emili, S. and F. Galli. (2025) "Capturing inter and intra sectoral productivity spillovers in industrial filière: A system of dynamic spatial panel data models". *Journal of Regional Science* 65(3), 639-653. <https://doi.org/10.1111/jors.12757>
- Du, K., F. Galli and L. Wang. (2025) "A command to fit spatial stochastic frontier models with inefficiency spillovers". *The Stata Journal* 25(1), 189-211. <https://doi.org/10.1177/1536867X251322970>
- Galli, F. (2024). "Accounting for unobserved individual heterogeneity in spatial stochastic frontier models: the case of Italian innovative start-ups". *Spatial Economic Analysis* 19(4), 620-645. <https://doi.org/10.1080/17421772.2024.2306953>
- Bernini, C. and F. Galli (2024). "Economic and environmental efficiency, subsidies and spatio-temporal effects in agriculture". *Ecological Economics* 218, 108120. <https://doi.org/10.1016/j.ecolecon.2024.108120>
- Bernini, C. and F. Galli (2023). "Networking and spatial interactions: what contributes most to increasing museums' attractiveness?" *Papers in Regional Science* 102(6), 1215-1232. <https://doi.org/10.1111/pirs.12764>
- Galli, F. (2023). "A spatial stochastic frontier model introducing inefficiency spillovers". *Journal of the Royal Statistical Society Series C: Applied Statistics* 72(2), 346-367. <https://doi.org/10.1093/jrssc/qlad012>
- Emili, S. and F. Galli (2023). "Spatial and cross-sectoral input spillover effects: the case of the Italian tourism industry". *Journal of Productivity Analysis* 59, 243-258. <https://doi.org/10.1007/s11123-023-00665-4>
- Bernini, C. and F. Galli (2023). "Innovation, productivity and spillover effects in the Italian accommodation industry". *Economic Modelling* 119, 106145. <https://doi.org/10.1016/j.econmod.2022.106145>
- Galli, F. (2023) "A spatial stochastic frontier model including both frontier and error based spatial cross-sectional dependence". *Spatial Economic Analysis* 18(2), 239-258. <https://doi.org/10.1080/17421772.2022.2097729>
- Emili, S. and F. Galli (2022). "Self perceptions and perceptions of peers: their role in understanding expenditure behaviours". *Quality & Quantity* 56(6), 4573-4597. <https://doi.org/10.1007/s11135-022-01324-w>
- Bernini, C. and F. Galli (2022). "How much does satisfaction affect tourism expenditure during and post recessions?". *Current Issues in Tourism* 25(6), 937-954. <https://doi.org/10.1080/13683500.2021.1907320>
- Bernini, C., S. Emili, and F. Galli (2021). "Does urbanization matter in the expenditure-happiness nexus?". *Papers in Regional*

Other Contributions

- Emili, S. and F. Galli. (2025). "Modelling inefficiency in multi-output spatial stochastic frontiers for cultural and creative industries: A methodological proposal". In: Book of Short Papers, 3rd Italian Conference on Economic Statistics "SUSTAINABILITY, INNOVATION AND DIGITALIZATION: Statistical Measurement for Economic Analysis", Enzo Albano Edizioni, pp. 125-128, ISBN: 979-12-80655-52-3. **[Conference Proceedings]**
- Bernini, C., S. Emili, and F. Galli. (2025). "Spending diversity and quality indexes by SWB levels and urbanization degree". In: Book of Short Papers, 3rd Italian Conference on Economic Statistics "SUSTAINABILITY, INNOVATION AND DIGITALIZATION: Statistical Measurement for Economic Analysis", Enzo Albano Edizioni, pp. 29-32, ISBN: 979-12-80655-52-3. **[Conference Proceedings]**
- Emili, S., and F. Galli. (2025). A simultaneous system of dynamic spatial stochastic frontier models". In: Methodological and Applied Statistics and Demography II (SIS 2024, Short Papers, Solicited Sessions), Ed. Pollice A. and Mariani P., Series: Italian Statistical Society Series on Advances in Statistics, pp. 175-180, ISSN 3059-2135. **[Conference Proceedings]**
- Bernini, C., and F. Galli. (2024). "Cultural heritage and tourism attractiveness: the role of UNESCO sites". In: UNESCO. Turismo sostenibile fra patrimonio locale e cittadinanza globale, Ed. Aureli S., Battilani P. and Mariotti A., Series: Il patrimonio culturale: riflessioni e prospettive, Alma Mater Studiorum Università di Bologna, Bologna, pp. 70-78, ISBN 9788854971547. **[Conference Proceedings]**
- Galli, F. (2023). "Spillover effects in the innovative activity of Italian start-ups: a spatial stochastic frontier approach". In: Cities and Regions in Transition, Ed. Capello R. and Conte A., FrancoAngeli, Milano, pp.181-200, ISBN 9788835152811. **[Book Chapter]**
- Galli, F. (2023). "Modelling spillover effects in spatial stochastic frontier analysis". Available at <http://amsdottorato.unibo.it/10537/>. **[PhD Thesis]**

Academic Teaching Activities

Adjunct Professor

- Applied Statistics for Tourism, First Cycle Degree in Economics of Tourism and Cities, Department of Economics, University of Bologna, Rimini Campus, a.y. 2025-2026 (60 hours, SECS-S/03, Language: EN).
- Data Analysis for Managerial Decision Making (I.C.) - Data Mining, Master Degree in Business, Administration and Sustainability, Department of Management, University of Bologna, Forlì Campus, a.y. 2024-2025 (30 hours, SECS-S/03, Language: EN).
- Metodi Statistici per le Applicazioni Aziendali - Modulo 2, First Cycle Degree in Economia dell'Impresa, Department of Management, University of Bologna, Rimini Campus, a.y. 2023-2024, 2024-2025 (30 hours, SECS-S/03, Language: IT).
- Statistica per l'Analisi dei Dati, Master Degree in Economia, Consulenza e Professioni, Department of Management, University of Bologna, a.y. 2023-2024 (40 hours, SECS-S/01, Language: IT).

Crash Courses

- Crash Course and Laboratory in Statistics, Master Degree in Tourism Economics and Management, Department of Economics, University of Bologna, Rimini Campus, a.y. 2022-2023, 2023-2024 (30 hours, Teaching Coordinator: Prof. M. Ventrucchi, Language: EN).
- Crash Course in Probability and Statistics, Master Degree in Economics, Department of Economics, University of Bologna, a.y. 2020-2021, 2021-2022 (18 hours, Teaching Coordinator: Prof. S. Cagnone, Language: EN).

Teaching Tutor

- Statistica Economica, Analisi di Mercato, Statistica Aziendale, Algoritmi di Trading, Bachelor's Degree in Statistica, Finanza e Assicurazioni and Master Degree in Scienze Statistiche, Finanziarie e Attuariali, Department of Statistical Sciences "Paolo Fortunati", University of Bologna, Rimini Campus, Reference Professor: A. Guizzardi, a.y. 2020-2021, 2021-2022, 2022-2023, 2023-2024, 2024-2025.
- Metodi Statistici per le Applicazioni Aziendali, Bachelor's Degree in Economia dell'Impresa, Department of Management, University of Bologna, Rimini Campus, Reference Professor: S. Brasini, a.y. 2022-2023.
- Piano Lauree Scientifiche, Teaching Tutor at Opificio Golinelli (Bologna) and Liceo Scientifico A. Serpieri (Rimini), Reference Professor: S. Mignani, June-October 2019.

Supervised Theses

Bachelor's Degree in Economia dell'Impresa, Department of Management, University of Bologna:

- Valutazione statistica della produttività e della performance nel settore automobilistico in Italia (2025)
- La misurazione della produttività e dell'efficienza aziendale: Un applicazione al caso Technogym (2025)
- Impatto dell'asma e BPCO sui costi sanitari e di gestione (2025)
- Moda e innovazione: analisi statistica della produttività nel settore del fashion retail (2025)
- Il settore automobilistico italiano tra lavoro, capitale e produttività (2025)
- Analisi dell'epidemiologia oncologica in Italia: incidenza, fattori di rischio e prevenzione (2025)
- Analisi statistica dei ricavi dei club calcistici (2025)
- Analisi delle determinanti di prezzo nel mercato immobiliare (2025)
- SpaceX e Starlink: Elon Musk tra innovazione e trasformazione economica (2024)
- Analisi dell'occupazione femminile nell'Italia di ieri e oggi (2024)
- La ristorazione stellata: Analisi statistica delle esperienze e opinioni di clienti e lavoratori (2024)

Master Degree in Statistica, Economia e Impresa, Department of Statistical Sciences "Paolo Fortunati", University of Bologna (Co-Supervised):

- Musei in tempi di crisi: Analisi dell'impatto del Covid-19 sul settore museale italiano (2023)
- Subjective well-being e reddito: quanto contano gli effetti spaziali? (2022)
- Le determinanti territoriali dell'efficienza dell'industria ricettiva in Italia (2022)
- Itinerari museali, modelli spaziali e impatto economico (2021)

Student Services and Other Events

- Participation at Notte Europea dei Ricercatori with "Parole, emozioni e numeri per raccontare il governo locale e le scelte di spesa degli italiani" (26/09/2025).
- Participation at Notte Europea dei Ricercatori (Rimini Campus) with "ESPLORACULTURA: un'app per l'impatto degli investimenti culturali sullo sviluppo locale" (27/09/2024).

- Participation in the AlmaOrienta days and online events (08/03/2019, 01/03/2022, 30/11/2022, 30-31/01/2023).

Conferences, Workshops and Seminars

Organized Sessions

- “Consumptions, social cohesion and regional disparities”. Associazione Italiana di Scienze Regionali Annual Conference, Pescara, Italy, September 10-12, 2025.
- “Regional perspectives of production processes”. Associazione Italiana di Scienze Regionali Annual Conference, Turin, Italy, September 4-6, 2024.
- “Regional and spatial patterns in production processes and efficiency”. Associazione Italiana di Scienze Regionali Annual Conference, Naples, Italy, September 6-8, 2023.

Speaker

2025

- Angelini, F., Bernini, C. and F. Galli. “Museums in times of crisis: Covid-19, recovery and spatial contagion”, Session: Regional science, sustainable development and cultural heritage, XVII Riunione Scientifica SISTUR, Fano, Italy, November 6-8.
- Bernini, C., Emili, S., Galli, F., Greco, F., Guastadisegni, L. and C. Trivisano. “Interactive tools for statistical matching and expenditure-satisfaction analysis based on matched data”, Workshop Spoke 8 GRINS project (PNRR), Catania, Italy, September 18-20.
- Bernini, C. and F. Galli. “The cultural and social dimensions of leisure consumption: how do spending diversity and quality differ across Italian regions?”, Session: Consumptions, social cohesion and regional disparities, Associazione Italiana di Scienze Regionali Annual Conference, Pescara, Italy, September 10-12.
- Bernini, C., Emili, S. and F. Galli. “Spending diversity and quality indexes by SWB levels and urbanization degree”, Session: Statistics for territorial well-being, Associazione Italiana di Scienze Regionali Annual Conference, Pescara, Italy, September 10-12. *[Invited Session]*
- Bernini, C., S. Emili, and F. Galli. “Spatial dynamics in the productive system of the Italian cultural and tourism industry: A spatial econometric multivariate model”, Session: Turismo, rischio e strategie economiche: nuove prospettive economiche, Italy's National University Centre for Applied Economic Studies (CIMET) Workshop, Lecce, Italy, June 11-13. *[Invited Session]*
- Emili, S. and F. Galli. “A simultaneous system of dynamic spatial stochastic frontier models with dependent error components and inefficiency determinants”, Session: Firms, Workshop on “Advances in Spatial and Network Modelling for Policy Making”, La Sapienza University of Rome, Italy, May 29-30.
- Galli, F. and V. Montalto. “How cultural heritage shapes residents' image and tourism support: The mediating role of pride in place”, KEDGE Business School Webinar, April 24. *[Invited Seminar]*
- Bernini, C., Emili, S. and F. Galli. “Spending diversity and quality indexes by SWB levels and urbanization degree”, Session: Transition towards a sustainable future, 3rd Italian Conference on Economic Statistics, Naples, Italy, February 13-14.

2024

- Bernini, C., A. Cerqua, and F. Galli. “CAPturing local growth: the causal impact of the Common Agricultural Policy on areas with natural constraints”, Session: Statistics & the evaluation of policies for regions and local areas, The 15th European Evaluation Biennial

Conference, Rimini, Italy, September 23-27. [*Invited Session*]

- Galli, F. "Modelling spillover effects in spatial stochastic frontier analysis", Session: Regional perspectives of production processes, Associazione Italiana di Scienze Regionali Annual Conference, Turin, Italy, September 4-6.

- Emili, S. and F. Galli. "A simultaneous system of dynamic spatial stochastic frontier models", Session: Advances in spatial analysis of economic data, 52^a Riunione Scientifica della Società Italiana di Statistica, Bari, Italy, June 17-20. [*Invited Session*]

2023

- Galli, F. "Economic and environmental efficiency, subsidies and spatio-temporal effects in agriculture", Department of Economics Seminars, University of Oviedo, Spain, October 11, 2023. [*Invited Seminar*]

- Galli, F., J.A. Piedra-Peña, M.L. Breuillé, and J. Le Gallo. "Is compulsory inter-municipal cooperation an efficiency booster?", Session: Regional and spatial patterns in production processes and efficiency, Associazione Italiana di Scienze Regionali Annual Conference, Naples, Italy, September 6-8. [*Invited Session*]

- Bernini, C. and F. Galli. "Subsidies, productive performance and spatial effects: Evidence from the Italian agricultural sector", Session: Advances in spatial econometrics, Associazione Italiana di Scienze Regionali Annual Conference, Naples, Italy, September 6-8. [*Invited Session*]

- Galli, F., J.A. Piedra-Peña, M.L. Breuillé, and J. Le Gallo. "Is compulsory inter-municipal cooperation an efficiency booster?", Session: Cooperation and local/regional development, European Regional Science Association Annual Conference, Alicante, Spain, August 28-September 1.

- Emili, S. and F. Galli. "A system of dynamic spatial panel models to capture inter and intra sectoral productivity spillovers", Session: Productivity, 18th EU-REAL Meeting, IRPET, Florence, Italy, June 22-23. [*Invited Session*]

2022

- Galli, F. "Spatial stochastic frontier models: methods and applications to the Italian accommodation and agricultural sector", INRAE, Université de Bourgogne Franche-Comté, Dijon, France, December 6, 2022. [*Invited Seminar*]

- Bernini, C. and F. Galli. "The role of spatial interactions and museums routes in affecting the attractiveness of Italian museums", Session: Cultural goods and industries impact at a spatial level, Associazione Italiana di Scienze Regionali Annual Conference, Milan, Italy, September 5-7. [*Invited Session*]

- Galli, F. "A spatial durbin stochastic frontier model introducing spillover effects in the determinants of firms' efficiency", Session: Spatial economics and econometrics, Associazione Italiana di Scienze Regionali Annual Conference, Milan, Italy, September 5-7.

- Galli, F. "A spatial stochastic frontier model introducing cross-sectional dependence both in the frontier function and in the error structure", Session: Spatial econometrics, European Regional Science Association Annual Online Conference, August 22-26.

2021

- Bernini, C. and F. Galli. "R&D, human capital and spillover effects in the Italian accommodation industry: what does really matter?", Session: The re-launch of productivity in the European territory, Associazione Italiana di Scienze Regionali Annual Online Conference, September 8-10. [*Invited Session*]

- Galli, F. "A spatial Durbin stochastic frontier model with inefficiency spillover effects: a new proposal", Session: Spatial econometrics, European Regional Science Association Annual Online Conference, August 24-27.

2020

- Bernini, C., S. Emili, and F. Galli. "Regional disparities in the happiness-consumption nexus of Italian households", Session: Regional disparities in Italy and EU: trends, drivers, policies, Associazione Italiana di Scienze Regionali Annual Online Conference, September 2-4. *[Invited Session]*
- Bernini, C., S. Emili, and F. Galli. "The happiness-consumption relationship in the different urbanized areas of Italy", Session: Subjective well-being, spatial inequalities and urbanization, European Regional Science Association Annual Online Conference, August 25-27. *[Invited Session]*

Participation in National and International Research Groups

- November 2023 – Present: Collaborator of the "Growing Resilient, INclusive and Sustainable" (GRINS PE00000018 – CUP E63C22002120006) project (PNRR).
- February 2019 - June 2019: Collaborator of the "Metodologia statistica per la rilevazione dell'attività congressuale in Emilia-Romagna" project funded by Apt Servizi. Final report: Bernini C., S. Emili, F. Galli, F.P. Greco, and R. Medei. (2019). Produzione e domanda congressuale in Emilia-Romagna, Osservatorio sul turismo congressuale in E-R, Center for Advanced Studies in Tourism (CAST), University of Bologna, Rimini.

Awards and Scholarships

- "Giorgio Leonardi" Best PhD Thesis Prize 2024 - XXXVIII Edition, issued by AISRe (September 2024).
- SIS Award 2024 for the best PhD thesis in Applied Statistics (June 2024).
- AISRe Prize for the best paper presented by a young scholar - XIV Edition - for the contribution titled "A spatial durbin stochastic frontier model introducing spillover effects in the determinants of firms' efficiency" (September 2022).
- Marco Polo study grant for three months visiting at INRAE, l'Institut Agro Dijon, Université de Bourgogne Franche-Comté, Dijon, France (September-December 2022).
- Ph.D. scholarship, Department of Statistical Sciences "Paolo Fortunati", University of Bologna (November 2019 - October 2022).
- Study grant for deserving students a.y. 2018/19, University of Bologna.

Editorial Activities

Associate Editor

- 'Humanities and Social Sciences Communications'. Publisher: SPRINGER NATURE, Campus, 4 Crinan St, London, England. ISSN / eISSN: 2662-9992. <https://www.nature.com/palcomms/>

Referee

Almatourism (1), Annals of Tourism Research (1), Applied Economics (1), Economic Modelling (4), Empirical Economics (2), Food Policy (1), Humanities & Social Sciences Communications (1), International Journal of Happiness and Development (1), International Review of Economics (1), Journal of Cultural Economics (1), Journal of Place Management and Development (1), Journal of Productivity Analysis (2), Journal of Sustainable Tourism (1), Papers in Regional Science (2), Regional Studies (1), Social Indicators Research (1), SN Business & Economics (1), Spatial Economic Analysis (2), Spatial Statistics (1), Quality and Quantity (1)

Scientific Affiliations

Società Italiana di Statistica, Spatial Econometrics Association, European Regional Science Association, Associazione Italiana di Scienze Regionali.

Languages

Italian (mother tongue), English (IELTS C1).

Software

Stata, Matlab, R, $\text{\LaTeX}$.
