Curriculum Vitae

Personal info

Brescia (Italy), October 2, 1985

Nationality: Italian

Status: Married, 2 children (Lorenzo and Arianna)

Bureau: BETA UMR 7522, Univ. de Strasbourg, 61 av. de la Foret Noire, Strasbourg, France

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CURRENT APPOINTMENT

Full Professor, BETA UMR 7522, Université de Strasbourg (2025)

RESEARCH INTEREST

Economics of science and innovation Science of science Applied AI/ML

EDUCATION

<u>PhD in Quantitative Economics</u>, Scuola Superiore Sant'Anna (Pise) 2015 cotutelle with Université de Strasbourg. Dissertation: *Three essays on firm growth, innovation, and persistent performance*, supervisors P. Llerena (Université de Strasbourg) and G. Bottazzi (Scuola Superiore Sant'Anna).

MA in Industrial Engineering, University of Brescia, 2011. Dissertation: *Quantitative methods for the assessment of teaching quality of academic instructors*, supervisor F. Lissoni (Université de Bordeaux).

PUBLICATIONS IN PEER-REVIEWED JOURNALS (from most recent)

Bianchini, S., Muller, M., & Pelletier, P. <u>Drivers and barriers of AI adoption and use in scientific research</u>. *Technological Forecasting & Social Change*, 220, 124303. <u>Link to article</u>

Jurowetzki, R., Hain, D. S., Wirtz, K., & Bianchini, S. (2025). The private sector is hoarding AI researchers: What implications for science? AI & Society, 40, 4145–415. Link to article

Abbonato, D., Bianchini, S., Gargiulo, F., & Venturini, T. (2024). <u>Interdisciplinary research in artificial intelligence: Lessons from COVID-19</u>. *Quantitative Science Studies*, (4), 922–935. <u>Link to article</u>

Damioli, G., Bianchini, S., & Ghisetti, C. (2024). <u>The emergence of a 'twin' transition scientific knowledge base in European regions.</u> Regional Studies, 59(1). <u>Link to article</u>

Bianchini, S., Damioli, G. & Ghisetti, C. (2023). <u>The environmental effects of the 'twin' green and digital transition in European regions</u>. *Environmental and Resource Economics* 84, 877–918. <u>Link to article</u>

Bianchini, S., Moritz M., & Pelletier, P. (2022). <u>Artificial intelligence in science: An emerging general method of invention.</u> Research Policy, 51(10), 104604. <u>Link to article</u>

Bianchini, S., Llerena, P., Ozel, E. & Ocalan-Ozel, S. (2022). <u>Gender diversity of research consortia</u> contributes to funding decisions in a multi-stage grant peer-review process. *Humanities and Social Sciences Communications*, 9,195. <u>Link to article</u>

Bianchini S., Llerena, P., Patsali, S. (2019). <u>Demand-pull innovation in science: Empirical evidence from a research university's suppliers</u>. Research Policy, 48, 100005. <u>Link to article</u>

Bianchini, S., Pellegrino, G. (2019). <u>Innovation persistence and employment dynamics</u>. Research Policy, 48(5), 1171-1186. <u>Link to article</u>

Bianchini, S., Llerena, P, & Martino, R. (2019). The impact of R&D subsidies under different institutional frameworks. Structural Change and Economics Dynamics, 50, 65-78. Link to article

Bianchini, S., Pellegrino, G., & Tamagni, F. (2018). <u>Innovation complementarities and firm growth</u>. *Industrial and Corporate Change*, 27(4), 657-676. <u>Link to article</u>

Bianchini, S., Krafft, J., Quatraro, F., & Ravix, J. (2017). Corporate governance and innovation: Does firm age matter? *Industrial and Corporate Change*, 27(2), 349-370. Link to article

Bianchini, S., Bottazzi, G., & Tamagni, F. (2017). What does (not) characterize persistent corporate high growth? Small Business Economics, 48(3), 633-656. Link to article

Bianchini, S., Lissoni, F., Pezzoni, M., & Zirulia, L. (2016). The economics of research, consulting, and teaching quality: Theory and evidence from a technical university. Economics of Innovation & New Technology, 25(7), 668-691. Link to article

Bianchini, S., Llerena, P. (2016). <u>Science policy as a prerequisite of industrial policy</u>. *Economia e Politica Industriale*, 43(3), 273-280. <u>Link to article</u>

Bianchini, S. (2014). Feedback effects of teaching quality assessment. Assessment & Evaluation in Higher Education, 39(3), 380-394. Link to article

Bianchini, S., Lissoni, F., & Pezzoni, M. (2013). <u>Instructor characteristics and students' evaluation of teaching effectiveness: Evidence from an Italian engineering school</u>. *European Journal of Engineering Education*, 38(1), 38-57. <u>Link to article</u>

ONGOING RESEARCH (submitted and R&R papers)

Bianchini, S., Di Girolamo, V., Ravet, J., & Arranz, D. <u>AI in science: Promises or perils for creativity?</u> [R&R Research Policy] <u>Link to article</u>

Hambye-Verbrugghen, J., Bianchini, S., Brockway, P., Aramendia, E., Heun, M. K., & Marshall, Z.. From twin transition to twice the burden: Digitalisation, energy demand, and economic growth. [R&R Ecological Economics] Link to article

Abbonato, D., Bianchini, S., & Llerena, P. "Partnerships is all you need": The development of transformer technology and its impact on science [R&R Scientometrics]

Muller, M., Bianchini, S., Pelletier, P, & Wirtz, K. On the global health science response to COVID-19. [submitted] <u>Link to article</u>

POLICY PAPERS and REPORTS (from most recent)

European Commission: Directorate-General for Research and Innovation. <u>Mutual learning exercise on national policies for artificial intelligence in science</u> – Final report, Bianchini, S. (editor), Publications Office of the European Union, 2025. <u>Link to article</u>

European Commission: Directorate-General for Research and Innovation. <u>Framework conditions and funding for AI in science – Mutual learning exercise on national policies for AI in science – First thematic report, Montgomery, J. (editor), Publications Office of the European Union, 2025. <u>Link to article</u></u>

European Commission: Directorate-General for Research and Innovation. <u>Infrastructures for AI in science – Mutual learning exercise on national policies for AI in science – Second thematic report, King, R(editor), Publications Office of the European Union, 2025. <u>Link to article</u></u>

European Commission, Directorate-General for Research and Innovation, Arranz, D., Bianchini, S., Di Girolamo, V. et al., <u>Trends in the use of AI in science – A bibliometric analysis</u>, Publications Office of the European Union, 2023. <u>Link to article</u>

Bianchini, S., Bottero, P., Colagrossi, M., Damioli, G., Ghisetti, C. and Michoud, K., <u>Mapping the Scientific Base for SDGs and Digital Technologies</u>, Publications Office of the European Union, Luxembourg, 2023. <u>Link to article</u>

Bianchini, S., Bottero, P., Colagrossi, M., Damioli, G., Ghisetti, C. and Michoud, K., <u>Sustainable Development Goals and Digital Technologies: Mapping Scientific Research</u>, Publications Office of the European Union, Luxembourg, 2023. <u>Link to article</u>

TEACHING ACTIVITY

Mathématiques II (24h, Bachelor, taught in French): Vectors; matrix algebra; optimization; constrained optimization

Économétrie appliqué (45h, Master, taught in French): OLS; instrumental variables; maximum likelihood estimation; limited dependent variables; coding in R

<u>Impact evaluation</u> (20h, Master, *taught in English*): Policy evaluation strategies; impact evaluation techniques (randomized trails, regression discontinuity design, difference-in-difference, propensity score matching; coding in R

<u>Data science</u> (40h, Master, *taught in English*): Supervised learning; regression and classification; coding in Python

<u>Deep learning</u> (40h, Master, *taught in English*): Neural networks (NNs); Convolutional NNs; Recurrent NNs; transformers and LLMs; coding in Python

<u>Conversation on "Artificial Intelligence"</u> (8h, Magistère, *taught in English*): History of AI; AI and labor; AI and the environment; AI in science.

In the past: <u>Industrial economics</u> (72h, Master, Univ. of Brescia); <u>Economics of innovation</u> (36h, Master, Univ. of Brescia); <u>Economics of science</u> (8h, Univ. of Strasbourg and Scuola Superiore Sant'Anna).

Founder and coordinator of the MA Programme <u>Data Science pour l'Économie et l'Entreprise</u> (Data Science for Economics and Business, DS2E), FSEG Université de Strasbourg. Details <u>here</u>

PUBLICLY FUNDED PROJECTS

As Principal Investigator:

MANTRA (MApping the iNnovation landscape: Towards Responsible Ai), 2025–2030. Objectives: Mapping the landscape of AI core and applied research and investigate the responsible use of AI in scientific practices. In partnership with Faculty of Law, Université de Strasbourg (Co-PI Prof. Jean-Marc Deltorn). Sponsor: France 2030. Budget: 205 000 €. Details here

SEED (Sustainable Economies in the Era of Digital transformation), 2022–2025. Objectives: The project aims to understand the interlinkages between digitalization and sustainable development, and the contextual factors that can maximize the benefits and minimize the risks of the digital transformation. Sponsor: Agence Nationale de la Recherche (ANR). Budget: 366 000 €. Details here

<u>DInnAMICS</u> (Demand-driven Innovation Assessment in Medical and unIversity eCo-Systems), 2019–2021. Objectives: Evaluating the role of public procurement in promoting the development of AI and computer-assisted technologies in the domain of health. *Sponsor*: Agence Nationale de la Recherche (ANR). *Budget*: 165 000 €. Details <u>here</u>

ARISE (ARtificial Intelligence in the Science systEm), 2020–2022. Objectives: Analysing socio-economic transformations triggered by Artificial Intelligence (AI) through an in-depth assessment of the diffusion and the impacts of AI in the science system. Sponsor. CNRS. Budget: 120 000 €.

Robotisation, environmental impacts, and the dynamics of wages and employment, 2019–2020. Objectives: Analysing the interrelationship between innovations (AI and robots), wages and employment at the firm- and industry-level. Sponsor: PUD-PROGEDO. Budget: 10 000 €

As partner:

<u>GIGA (Gender bias In Grant Allocation)</u>, 2019–2021. Coordinated by P. Llerena (Université de Strasbourg). *Sponsor*: Agence Nationale de la Recherche (ANR).

<u>UTTO (University Technology Transfer and its Optimization)</u>, 2016–2018. Coordinated by N. Carayol (Université de Bordeaux) and P. Llerena (Université de Strasbourg). *Sponsor*: Agence Nationale de la Recherche (ANR).

<u>ASTRAL (Assessment of Science and Technology Research in Alsace)</u>, 2014–2015. Coordinated by J. Lane (NYU) and P. Llerena (Université de Strasbourg). *Sponsor*: Gutenberg Chair, Region Alsace.

<u>STARMETRICS</u> (Science and Technology for America's Reinvestment: Measuring the EffecTs of Research on Innovation, Competitiveness and Science), 2014–2015. Coordinated by J. Lane (NYU). *Sponsors*: NIH, NSF, the U.S. Department of Agriculture, and the Environmental Protection Agency.

WORKSHOPS AND CONFERENCES (last five years)

<u>2024</u>. "The Organisation, Economics and Policy of Scientific Research", Turin, IT"; Gender Summit GS2024, Online; IA et l'impact environnemental dans l'industrie, Schmidt Groupe, Sélestat, FR.

<u>2023</u>. « Les rendez-vous de la MITI : parlons interdisciplinarité! », CNRS, FR; "The Organisation, Economics and Policy of Scientific Research", Munich, DE; The Strategic Council for Research Excellence, Integrity, and Trust: Expanding the Use of AI across Science, National Academy of Science, US.

<u>2022</u>. "Artificial Intelligence in Science" – AI Matrix Workshop, Bruxelles, BE; R&D Management, Trento, IT; ISS Conference [Keynote speech], Changsha, CN; GEOINNO2022, Milan, IT; "The Organisation, Economics and Policy of Scientific Research", Leuven, BE.

<u>2021</u>. « Les nouveaux temps modernes : l'impact de l'IA sur le marché du travail », Bizz&Buzz festival, FR ; « Intelligence artificielle et environnement : une loi de plus, Monsieur Asimov! », Centre de Culture Numérique, Strasbourg, FR; ITI HealthTech [Keynote speech], Strasbourg, FR; CNRS Défi Enjeux Scientifiques et Sociaux de l'IA, Paris, FR.

<u>2020</u>. Online EU Commission Workshop "Timely topics in innovation: AI, digitalization and interregional investments".

REFEREE ACTIVITY

Reviewer for: Economic Geography; Economics of Innovation and New Technology; Energy Strategy Reviews; Eurasian Business Review; Industrial and Corporate Change; Industry and Innovation; Journal of Economic Behavior and Organization; Journal of Small Business and Enterprise Development; Journal of Evolutionary Economics; PLOS ONE; Quantitative Science Studies; Research Policy; R&D Management; Science and Public Policy; Scientometrics; Small Business Economics; Technovation; Technology in Society.

External reviewer (evaluator), Agence Nationale de la Recherche (ANR), France [since 2019]

External reviewers for "Campagne de qualification MCF, section 05/06" [since 2024]

SUPERVISIONS

PhDs:

Pierre Pelletier (2019–2023). Artificial intelligence in science: Diffusion and impact. Link to thesis

Kevin Wirtz (2019–2023). Scientific collaboration and mobility: A creativity perspective. Link to thesis

Diletta Abbonato (2020–2024). The role of artificial intelligence for societal challenges. Link to thesis

<u>Jérôme Hambye</u> (2021–ongoing). Digitalisation, energy demand, and economic growth.

Kévin Michoud (2023–ongoing). Mapping the scientific base for SDGs and digital technologies.

<u>Fazliddin Shermatov</u> (2024–ongoing). Science in the age of AI and super computers.

Postdoc:

Andrea Borsato (2020–2022). Modelling employment effects of automation technologies.

PhD committee:

<u>Eva Jacob</u> (Université de Strasbourg, June 2025). Unconditional basic income challenged by social justice. History, concept, experiment.

<u>Sylvain Fontaine</u> (Sorbonne University, December 2024). The diffusion of Artificial Intelligence into neuroscience: A multiscale approach to the genericity of a research-technology.

<u>Francesca Isola</u> (University of Siena, May 2024). Three essays on intrahousehold inequality and separation outcomes: A European perspective.

Olimpija Hristova Zaevska (Copenhagen Business School, June 2024). Industry 4.0 ecosystems – Design, value creation, and impact across European regions.

OTHER & RESPONSABILITIES

<u>Director</u> of the Chair "Data Science for Economics and Business", Fondation Université de Strasbourg (active budget 205 000 € - 2019-2021, supported by *Crédit Agricole* and *Mazars*) (active budget 120 000 € - 2022-2024, supported by *Crédit Agricole*)

Winner of the "<u>Guy Ourisson Prize 2020</u>" (Gutenberg Circle). The prize is awarded each year to up to five most promising researchers under 40 in the Alsace region in any field. Details <u>here</u>

Member of the Editorial Review Board: Industry and Innovation, Small Business Economics

Member of the Board of Management for "The International Schumpeter Society" (2020–2022)

Member of the <u>Scientific and Organizing Committee</u> for the Workshop on "The Organization, Economics and Policy of Scientific Research" (Strasbourg, 2025)

Editorial Board (guest editor with A. Coad and R. Brown), special issue "High growth firms" in Cuaderno de Economia (2018). Details <u>here</u>

Expert groups / consulting activities for:

- European Commission: DG-JRC-Modelling, Indicators and Impact Evaluation
- European Commission: DG-RTD-Research and Innovation
- OECD: Structural Policy Analysis Division, Economics Department
- Private sector [data analytics, AI/ML]

Rapporteur of the Mutual Learning Exercise on National Policies for AI in Science (2024-2025). Details here

Last update 27/08/2025