Simone Vannuccini

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Office Contact Information

GREDEG — Groupe de recherche en droit, économie et gestion Campus Azur du CNRS — 250 rue Albert Einstein — CS 10269

F06905 Sophia Antipolis Cedex Born: May 16, 1985—Pistoia/IT

Nationality: Italian

Languages: IT (mother tongue), EN (fluent), FR (basic), GER (basic)

Research Interests

 $Economics\ of\ Innovation\ and\ Technological\ Change\ \bullet\ Artificial\ Intelligence\ \bullet\ Digital\ transformations\ \bullet$ Industrial Dynamics & Organization • Science and Technology Policy • Complexity Theory • European Studies & Public Policy

Position

Université Côte d'Azur

Chaire de Professeur Junior en économie de l'Intelligence Artificielle et de l'Innovation

Other/Previous Appointments

2022–Current 2018–2022 2022–Current 2021–2022	Science Policy Research Unit (SPRU), University of Sussex Business School Honorary Lecturer in the Economics of Innovation Lecturer in the Economics of Innovation Associate Fellow, Digital Futures at Work (Digit) Centre Project Member, Horizon 2020 Pillars — Pathways to Inclusive Labour Markets
2019-2022	Imperial College Business School (London/UK) Visiting Lecturer and Module Lead, 'Economics and Strategy for Innovation' (PG)
2018–Current 2016–2018 2017–2018	Friedrich Schiller University Jena (Jena/DE) Associate Fellow, Graduate College 'The Economics of Innovative Change' Research Fellow/Post-doc, Chair of Economics/Microeconomics Coordinator, Double Degree M.Sc. Programme Uni-Jena—University of Insubria
2019-Current 2016-2019 2015	University of Insubria (Varese/IT) Faculty Board Member of the PhD Program in Methods and Models for Economic Decisions, University of Insubria. Adjunct Professor of Economics of Innovation Visiting Professor of Economics of Innovation
2020 2017	European Commission — Joint Research Centre (JRC) JRC Ispra: Contracted Researcher — studies on Artificial Intelligence and productivity JRC Seville: Contracted Researcher — study on <i>Top Corporate R&D investors and Knowledge Diffu</i> -

University of Illinois at Urbana-Champaign (Champaign/IL)

Visiting Researcher (December 2016–January 2017) 2016-2017

sion

Center for Studies on Federalism (Turin/IT)

2016

2010

Education

Friedrich Schiller University Jena and Max Planck Institute of Economics

Pн.D. in Economics of Innovative Change, (Supervisor: Prof. Dr. Uwe Cantner)

Dissertation: Linked Markets: Innovation, the Dynamics of Industries and General Purpose Technologies. (Grade: Summa cum laude).

Doctoral Committee: Proffs. Uwe Cantner (University of Jena), Giovanni Dosi (Sant'Anna School of Advanced Studies, Pisa), Francisco Fatas-Villafranca (University of Zaragoza)

University of Florence

MA in Advanced Development Economics

BA in Economic Development and International Cooperation

Publications (OA=Open Access)

JOURNAL ARTICLES

- Artificial Intelligence's New Clothes? A System Technology Perspective (with E. Prytkova), *Journal of Information Technology*. Earlier version as SPRU Working Paper
- [OA] Invention in Times of Global Challenges: A Text-Based Study of Remote Sensing and Global Public Goods (with I. Ott), Economies. 2023; 11(8):207.
- [OA] Peer Effects in Productivity and Differential Growth: A Global Value-Chain Perspective (with P. Mundt, I. Savin, H. Inoue, U. Cantner), Industrial and Corporate Change, Advance articles.
- [OA] Understanding emerging patterns and dynamics through the lenses of the cyber-physical universe (with M. Lombardi), Patterns, Volume 3, Issue 11, 100601, November 11, 2022.
- The Design of Digital Automation Technologies: Implications for the Future of Work (with M. Savona, E. Steinmueller, T. Ciarli), CESifo EconPol Forum 23 (5), 4–10.
- On the Basis of Brain: Neural–Network–Inspired Changes in General Purpose Chips (with E. Prytkova), Industrial and Corporate Change, Volume 31, Issue 4, August 2022, Pages 1031–1055. SPRU Working Paper Series version. The paper received a special mention at the 2019 EMAEE Conference. Media coverage: AgendaDigitale.eu (IT) Il futuro dei semiconduttori passa per i platform chips: gli scenari possibili
- Pervasive Technologies and Industrial Linkages: Modeling Acquired Purposes (with U. Cantner), Structural Change and Economic Dynamics, Volume 56, March 2021, Pages 386–399. (Available on-line since 8 November 2017).
- Short– and Long–run Effects of External Interventions on Trust (with I. Asanov), Review of Behavioral Economics: Vol. 7: No. 2, pp 159–195
- [OA] A systemic perspective on socioeconomic transformation in the digital age (with R. Strohmaier and M. Schuetz), J. Ind. Bus. Econ., Volume 46, Issue 3, pp 361--378.
- Replicator dynamics in value chains: explaining some puzzles of market selection (with U. Cantner and I. Savin), *Industrial and Corporate Change*, Volume 28, Issue 3, June 2019, Pages 589–611.
- Elements of a Schumpeterian Catalytic Research and Innovation Policy (with U. Cantner), *Industrial and Corporate Change*, Volume 27, Issue 5, 1 October 2018, Pages 833–850.
- [OA] Conventional Direction to Unconventional Measures: Using Quantitative Easing to shape Eurozone Fiscal Capacity (with O. Fontana), *Perspectives on Federalism*, Vol. 8, issue 2.
- The Rate, Direction and Timing of European Industrial Policy: a Few Proposals, Research Paper, Center for Studies on Federalism.

BOOKS AND CONTRIBUTION TO BOOKS

- Handbook of Research Methods and Applications in Industrial Dynamics and Evolutionary Economics (ed. with U. Cantner and M. Guerzoni), Edward Elgar, forthcoming, 2023.
- Tools and concepts for understanding disruptive technological change after Schumpeter (with M. Knell), Chapter 4 of *The Routledge Handbook of Smart Technologies. An Economic and Social Perspective* (eds. H.D. Kurz, M. Schuetz, R. Strohmaier, S. Zillian), Routledge. Jena Economic Research Paper version.
- Innovation and lock-in (with U. Cantner), in Bathelt H., Cohendet P., Henn S., and Simon L., *The Elgar Companion to Innovation and Knowledge Creation*, Edward Elgar: Cheltenham, Northampton (MA).
- L'Europa e le Politiche Industriali (with P.V. Dastoli), in Onida F. and Viesti G., *Una nuova politica industriale in Italia. Investimenti, innovazione, trasferimento tecnologico*, Passigli Editore, 2016.
- Desirable Effects of a European Plan for Sustainable Development, in Bordino G., A New Right for Democracy and Development in Europe, Peter Lang.
- Il Governo di un'Economia Federale Sovranazionale e le sue Istituzioni nell'Esperienza Europea Antologia di Contributi (eds. with Domenico Moro), CEDAM, Padova.
- A New View of General Purpose Technologies (with Uwe Cantner), in Adolf Wagner, Ullrich Heilemann (Eds.), Empirische Makroökonomik und mehr: Festschrift zum 80. Geburtstag von Karl Heinrich Oppenländer (pp. 71–96). Berlin, Boston: De Gruyter.
- Europa 2.0. Prospettive ed Evoluzioni del Sogno Europeo (eds. with Nicola Vallinoto), Ombre Corte, Verona.

WORKING PAPERS

Robot Adoption and Innovative Activity (with D. Antonioli, A. Marzucchi, F. Rentocchini), Munich Papers in Political Economy

Taking Stock of the Effects of Technological Change on Labour Markets: A Systematic Literature Review (with T. Ciarli, T. Portaluri, M. Savona, and E. Steinmueller). Deliverable D1.1. of the Horizon 2020 PILLARS Project

Teaming up with large R&D investors − Good or Bad for Knowledge Production and Diffusion? (with S. Amoroso), SPRU Working Paper Series − Media coverage: Research Professional.

The Compositional Nature of Productivity and Innovation Slowdown (with U. Cantner, H. Graf, and E. Prytkova), Jena Economic Research Papers.

Generalizing General Purpose Technologies.

COMMENTARIES AND OTHER

- 2023 ChatGPT and Generative AI, between Farce and Tragedy, GREDEG Blog, March 2023. Shortened version published on Digit Blog, May 2023.
- Opportunities for S&T leaders in the current global landscape insights from 'model thinking', Cover Story, KIRD Newsletter Vol. 03, November 2022.
- Interview: Humans of AI₃SD: Simone Vannuccini, in Pauli, Michelle and Vannuccini, Simone, Kanza, Samantha, Frey, Jeremy G. and Niranjan, Mahesan (eds.) (2021) Humans of AI₃SD, University of Southampton.
- (IT) IA, il confine tra policy tecnologiche e industriali: per lo sviluppo serve una nuova visione, AgendaDigitale.eu, 14 September 2021.
- 2021 (IT) Perché passa dai chip la nuova politica industriale mondiale, AgendaDigitale.eu, 5 May 2021.
- (IT) Combinare Quantitative Easing e Piano Juncker per uscire dalla crisi (with O. Fontana), Comment n.80 Center for Studies on Federalism, 9 June 2016.
- In Memory of Albert Hirschman, The Federalist Debate, n.2/2013.

2011

Teaching

Courses/Modules Taught

Université Côte d'Azur

²⁰²³ Artificial Intelligence and Societal Transformations (MSc course), Winter term.

Science Policy Research Unit (SPRU), University of Sussex Business School

- Convenor of 'Industrial Dynamics' (UG Module), 1 edition.
- 2020–2022 Convenor of 'Digital Transformations and Innovation' (PG Module), 4 editions.
- ^{2020–22} Convenor of 'Artificial Intelligence and Policies for Technological Revolutions' (PG Module), 3 editions.
- Convenor of 'Industrial and Innovation Policy' (PG Module), ${f 2}$ edition.
- Module Lead for 'Science, Technology and Innovation' (Online Distance Learning PG Module), **2** edition.
- 2018-2022 Convenor of 'Perspectives, Methods and Skills' (PG Module), 5 editions.
- 2019–2022 Convenor of 'Innovation Systems' (UG Module), 4 editions.
- Module Lead for 'Quantitative Methods for Energy Policy' (Online Distance Learning PG Module) **3 edition**.
- Convenor of 'Economics of Innovation' stream of the Module 'Advanced Economic Topics' (UG Module), **3 editions**.

Imperial College Business School

Module Leader, 'Economics and Strategy for Innovation', MSc Economics and Strategy for Business, **3 editions**.

Gran Sasso Science Institute

Multidisciplinary Doctoral block course on 'the Economics of AI', 6–8 May.

Friedrich Schiller University Jena

- Economics of Innovation II Industrial Dynamics and Evolution (MSc course), Summer Term, Adjunct Professor.
- Economics of Innovation III Structural Change and Economic Dynamics (MSc course), Winter Term, Adjunct Professor.
- Economics of Digitalisation, 13th Jena Doctoral Summer Academy
- Economics of Innovation II Industrial Dynamics and Evolution (MSc course), Summer Term, Adjunct Professor.
- Economics of Innovation I Innovation Decisions (MSc course), **5 editions**, Winter Term (term 2014–15 excluded), Lecturer.
- Economics of Innovation II Industrial Dynamics and Evolution (MSc course), **5 editions**, Summer Term, Lecturer.
- Economics of Innovation III Structural Change and Economic Dynamics (MSc course), **6 editions**, Winter Term, Lecturer.
- 2017 Productivity and Efficiency Measurement (MSc course), Summer Term, TA.
- Industries Linked Payoffs and General Purpose Technologies (PhD level block course at the Ninth Jena Summer Academy on Innovation and Uncertainty).

University of Insubria, Varese

- AY 2018–19 Seminar in Innovation Economics II (MSc course).

 AY 2017–18 Seminar in Innovation Economics I (MSc course).
- AY 2016–17 Economics of Innovation 1 Visiting Professor (MSc course).
- AY 2015-16 Economics of Innovation 2 Visiting Professor (MSc course).
- AY 2014-15 Economics of Innovation 2 Visiting Professor (MSc course).

Collegio Carlo Alberto, Turin — Master MaDaS

AY 2017-18 Economics of Complex Systems (MSc course).

Guest Lectures

- Karlsruhe Institute of Technology, Chair of Economic Policy (Economics of General Purpose Technologies)
- Ajou University, South Korea Master iMPA, UP de Madrid Karlsruhe Institute of Technology, Chair of Economic Policy (Economics of General Purpose Technologies) University of Bergamo (Economics of Digitalisation)
- Karlsruhe Institute of Technology, Chair of Economic Policy (Economics of General Purpose Technologies)
- Karlsruhe Institute of Technology, Chair of Economic Policy (Economics of General Purpose Technologies)

THESES SUPERVISION

Science Policy Research Unit (SPRU), University of Sussex Business School

Master Dissertations: 28; MBA Dissertation: 3.

Friedrich Schiller University Jena

2014-2018 Master Theses: 105.

Conferences, Lectures & Talks

My TEDxFSU Jena talk: Monsters and Technologies (February 2015).

Keynotes & Invited talks

- *Keynote "The Human Use of Human Beings" AI edition: How AI can Improve or Worsen the Conditions of Labour in Supply Chains, Slave-Free Alliance Members' Conference, London (UK), 27 September
- Keynote Artificial intelligence from an innovation system perspective, DFG Network 'The Dynamics of Innovation Systems: Perspectives, Influences and Operationalization', TU Braunschweig (DE), 2 June
- Keynote Understanding and governing Artificial Intelligence in the Cyber–physical Universe, CINGAI Forum 2023, 7th World Intelligence Congress, Tianjin (CN), 18 May

Conference & Seminar presentations

- CORA 2023, Goethe University Frankfurt Eu-SPRI Conference 2023, Brighton CCC Doctoral Conference, St Gallen UNU–MERIT, Maastricht
- TPRI, Boston University AIGLe Workshop, University Paris Saclay SIEPI (Italian Society of Industrial Economists) Conference 2022, University of L'Aquila AI4SD Conference 2022, Session Chair Technology and Innovation Management Chair, ETH Zurich
- University of Sussex, Economics Department University of Kassel WIIW/FIW Vienna (Link to YouTube recording) 18th International Schumpeter Society (ISS) Conference, LUISS, Rome Munich Summer Institute (LMU/TUM/MPI/ETH) University of Insubria 17th ENEF Workshop, University of Bergamo Eindhoven University of Technology.
- Directed Assembly Network and AI₃SD Network+, University of Southampton (Link to YouTube recording) AI₃SD Network+ Summer Seminar Series, University of Southampton (Link to YouTube recording)
- KIT Workshop Economics and Finance, Karlsruhe ReshapingWork Conference, Vrjie University Amsterdam Beta, University of Strasbourg Invited lecture at SPRU Residential Training on 'Governance of Artificial Intelligence' YSI–INET, Brighton EMAEE2019, University of Sussex University of Insubria, Varese OLKC Conference 2019, University of Sussex.

- Future of Work Workshop, UK Cabinet Office OGP ASSET Conference, University of Florence University of Ferrara 15th ENEF Workshop, University of Sussex Business School 17th International Schumpeter Society (ISS) Conference, Seoul Munich Summer Institute University of Sussex UNU–MERIT, Maastricht.
- BRICK, Collegio Carlo Alberto, Turin University of Insubria, Varese CONCORDi2017, JRC Sevilla EMAEE2017, University of Strasbourg 5th KIT-BETA Workshop, Universities of Karlsruhe and Strasbourg CGDE Workshop, Jena IMT School for Advanced Studies Lucca Sant'Anna School of Advanced Studies, Pisa, Institute of Economics.
- University of Illinois at Urbana-Champaign, IL SPRU, University of Sussex University of Insubria, Varese 16th International Schumpeter Society (ISS) Conference, Montréal University of Florence University of Verona Vicenza Campus.
- Conference 'What budget, resources, fiscal and borrowing powers for the EU?', University of Florence Conference 'Governance of a Complex World', CNRS–Gredeg and University of Nice Sophia Antipolis, Nice DRUID Conference 2015, Luiss Business School EMAEE2015, UNU–MERIT, Maastricht Sant'Anna School of Advanced Studies, Institute of Economics.
- Workshop Explaining Economic Change, University La Sapienza, Rome and Accademia Nazionale dei Lincei Universidad Loyola Andalucía University of Insubria, Varese.
- 1st Doctoral Workshop in Economics of Innovation, Complexity and Knowledge, BRICK University of Torino 25th EAEPE Annual Conference, Université Paris Nord 13 University of Southern Denmark, Odense Seventh Jena Summer Academy on Innovation and Uncertainty, FSU Jena and Max Planck Institute of Economics 35th DRUID Conference, ESADE, Barcelona.
- Sixth Jena Summer Academy on Innovation and Uncertainty, FSU Jena and Max Planck Institute of Economics 14th International Schumpeter Society (ISS) Conference, Brisbane, QLD
- DIMETIC Final session 'Modeling, Geography of Innovation and Growth, Policy', UNU–MERIT, Maastricht Fifth Jena Summer Academy on Innovation and Uncertainty, FSU Jena and Max Planck Institute of Economics.
- First ESSA Summer School in social simulation, University of Brescia.

Conferences Events Organized

- Workshop Discovering AI–Driven Discovery Artificial Intelligence and Novelty Generation, Sussex Humanities Lab and SPRU, 18 January 2022.
- Eu-SPRI Mini Course Technology, Policy and Pathways to Possible Worlds: Imagining Year 2050 Now, online event, 03/12/2020.
- The Economics, Governance and Management of AI, Robotisation, and Digital Transformations, European Meeting on Applied Evolutionary Economics (EMAEE), SPRU and University of Sussex Business School, Brighton, June 3–6 2019.
- Thematic track *Deep changes at firm, market and economy—wide level in the era of digitalization and automation* within the International Organisational Learning, Knowledge and Capabilities Conference (OLKC) 2019 'The Human Side of Innovation', Brighton, April 24–26 2019.
- Firm Automation in the Era of Artificial Intelligence: The Future of Organisation, Employment, and Productivity, 15th European Network on the Economics of the Firm (ENEF) meeting, SPRU and University of Sussex Business School, Brighton, September 13–14 2018.
- A New Industrial Policy for the European Union, Turin, 8 May 2015, organized in collaboration with the Center for Studies on Federalism (CSF), Turin, and the European Policy Centre (EPC), Brussels.
- Foundations of Economic Change Behavior, Interaction and Aggregate Outcomes, 15th Conference of the International Joseph A. Schumpeter Society (ISS), Jena, July 27–30 2014.

Referee Service

2017-Current Editorial Board, Journal of Evolutionary Economics.

2021-Current Advisory Editor, Research Policy.

2019

Grant applications referee for UK Economic and Social Research Council

Referee for: Industrial and Corporate Change • Industry $\mathring{\sigma}$ Innovation • Journal of Evolutionary Economics • Journal of Economics Surveys • Research Policy • Review of Social Economy • Small Business Economics, Technological Forecasting and Social Change • Eurasian Business Review.

Other Activities

2021-2022	Director, Future of Work Hub, University of Sussex Business School.
2019-2022	Co-Lead, Artificial Intelligence Research Mobilisation Group, University of Sussex Business School.
2019-2022	Convenor of the Freeman Seminars, SPRU, University of Sussex.
2020-2022	Associate member, Sussex Humanities Lab, University of Sussex.
2013-Current	Member of the General Assembly of the International Schumpeter Society.
2012-2013	Doctoral students representative in the Board of the Jena Graduate Academy.