Curriculum vitae

PERSONAL INFORMATION
Family name: SPELTA
First name: ALESSANDRO PAOLO
Date of birth: 14-04-1986
Nationality: ITALY

- **EDUCATION**

2010-2014 PhD
Dept. of Economics and Management, University of Pavia, Italy
Supervisor GUIDO ASCARI
2008-2010 Master
Dept. of Economics and Management, University of Pavia, Italy
2005-2008 Bechelor
Dept. of Economics and Management, University of Pavia, Italy

- **CURRENT POSITION(S)**

2019 – Today   PROFESSORE ASSOCIATO - SECS-S/01- STATISTICA
Dept. of Economics and Management, University of Pavia, Italy

- **PREVIOUS POSITIONS**

2017 – 2018   Big Data Analyst
Human Technopole, Milan, Italy
2016 – 2017   Post-doc Statistics
Dept. of Economics and Management, University of Pavia, Italy
2014 – 2016   Post-doc Economics
Dept. of Economics and Management, Catholic University of Milan, Italy

- **AWARDS**

2015   Unicredit Foundation Best Paper Award: Systemic Risk, Financial Networks and the Real Economy. Paper title *"A Unified View of Systemic Risk: Detecting SIFIs and Forecasting the Financial Cycle Via EWSs."*

- **VISITING**

2013   UvA University of Amsterdam, supervisor Cars Hommes
2012   Iseg, school of Economic and Management, Lisbon, supervisor Tanya Araujo

- **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

2019 – Today   6 Master Students
Dept. of Economics and Management, University of Pavia, Italy
1 Phd Student
Dept. of Economics and Management, University of Pavia, Italy

- **TEACHING ACTIVITIES**

2023 – Today   Master course in Financial Data Science – Dept. of Engineering, University of Pavia, Italy
2019 – Today   Master course in Data Science and Network Theory – Dept. of Economics and Management, University of Pavia, Italy
2019 – 2022   Undergraduate course in Statistics – Dept. of Economics and Management, University of Pavia, Italy

- **INSTITUTIONAL RESPONSIBILITIES**

2022 – Today   Principal Investigator PRIN: A geo-localized data framework for managing climate risks and designing policies to support sustainable investments (No. 20229CWYXC)

2019 – Today   Responsible of the faculty calendar for classes and exams

- **REVIEWING ACTIVITIES**

2018 – Today   Academic Editor PlosOne,
Topic Editor Frontiers in Artificial Intelligence

- **MAJOR COLLABORATIONS**

o   Paolo Giudici, Systemic Risk and financial crises Dept. of Economics and Management, University of Pavia, Italy

o   Fabio Pammolli, Systemic Risk and financial crises, management engineering, Polytechnic of Milan, Italy

o   Andrea Flori, Systemic Risk and financial crises, management engineering, Polytechnic of Milan, Italy

o   Nicolò Pecora, Dynamic Systems, Catholic University of Piacenza, Italy

o   Anna Agliari, Dynamic Systems, Catholic University of Piacenza, Italy

o   Maria Elena De Giuli, Mathematical modeling, Dept. of Economics and Management, University of Pavia, Italy

o   Paolo Pagnottoni, Systemic Risk and financial crises Dept. of Economics and Management, University of Pavia, Italy

o   Andrea Nigri, Mortality analysis, Dept. di Economia, Management e Territorio, University of Foggia, Italy

o   Susanna Levantesi, Mortality analysis, Dept. di Scienze Statistiche, University of Rome La Sapienza, Italy

- **PUBBLICATIONS**

• De Giuli, Spelta. Wasserstein barycenter regression for estimating the joint dynamics of renewable and fossil fuel energy indices. Computational Management Science (2023)

• Giansante, Flori, Spelta. On the fragility of the Italian economic territories under SARS-COV2 lockdown policies. Annals of Operations Research (2023)

• Pagnottoni, Spelta. Statistically validated coeherence and intensity in temporal networks of information flows. Statistical Methods & Applications (2023)

• Spelta, De Giuli. Does renewable energy affect fossil fuel price? A time–frequency analysis for the Europe. Physica A: Statistical Mechanics and its Applications (2023)

• Cardillo, Giordani, Levantesi, Nigri, Spelta. A multi-way analysis of similarity patterns in longevity improvements. Statistical Methods & Applications (2023)

• Spelta, Pecora. Wasserstein barycenter for link prediction in temporal networks. Journal of the Royal Statistical Society Series A: Statistics in Society (2023)

• Giudici, Pagnottoni, Spelta. Network self-exciting point processes to measure health impacts of COVID-19. Journal of the Royal Statistical Society Series A: Statistics in Society (2023)

• Pagnottoni, Spelta. The motifs of risk transmission in multivariate time series: Application to commodity prices. Socio-Economic Planning Sciences (2023)

• Cardillo, Giordani, Levantesi, Nigri, Spelta. Mortality forecasting using the four-way CANDECOMP/PARAFAC decomposition. Scandinavian Actuarial Journal (2023)

• Levantesi, Nigri, Piscopo, Spelta. Multi-country clustering-based forecasting of healthy life expectancy. Quality & Quantity (2023)

• Spelta, Pecora, Pagnottoni. Assessing harmfulness and vulnerability in global bipartite networks of terrorist-target relationships. Social Networks (2023)

• Pagnottoni, Spelta, Flori, Pammolli. Climate change and financial stability: Natural disaster impacts on global stock markets. Physica A: Statistical Mechanics and Its Applications (2022)

• Giudici, Polinesi, Spelta. <u>Network models to improve robot advisory portfolios</u>. Annals of Operations Research (2022)

• Grazzini, Spelta. <u>An empirical analysis of the global input–output network and its evolution</u>. Physica A: Statistical Mechanics and its Applications (2022)

• Giuli, Flori, Lazzari, Spelta. Brexit news propagation in financial systems: multidimensional visibility networks for market volatility dynamics. Quantitative Finance (2022)

• Spelta, Pecora, Pagnottoni.Chaos based portfolio selection: A nonlinear dynamics approach. Expert Systems with Applications (2022)

• Pagnottoni, Spelta, Pecora, Flori, Pammolli. Financial earthquakes: SARS-CoV-2 news shock propagation in stock and sovereign bond markets. Physica A (2021). https://doi.org/10.1016/j.physa.2021.126240

• Spelta, Pagnottoni. Mobility-based real-time economic monitoring amid the COVID-19 pandemic. Scientific Reports (2021). https://doi.org/10.1038/s41598-021-92134-x

• Flori, Pammolli, Spelta. Commodity prices co-movements and financial stability: A multidimensional visibility nexus with climate conditions. Journal of Financial Stability (2021). https://doi.org/10.1016/j.jfs.2021.100876

• Pammolli, Riccaboni, Spelta. The network origins of Schumpeterian innovation. Evolutionary Economics (2021). https://doi.org/10.1007/s00191-021-00733-8

• Spelta, Pecora, Flori, Giudici. The impact of the SARS-CoV-2 pandemic on financial markets: a seismologic approach. Annals of Operations Research (2021). https://doi.org/10.1007/s10479-021-04115-y

• Spelta, Flori, Pierri, Bonaccorsi, Pammolli. After the lockdown: simulating mobility, public health and economic recovery scenarios Scientific Reports (2020). https://doi.org/10.1038/s41598-020-73949-6

• Scala, Flori, Spelta, Brignoli, Quatrociocchi, Pammolli. Time, space and social interactions: exit mechanisms for the Covid-19 epidemics. Scientific Reports (2020). https://doi.org/10.1038/s41598-020- 70631-9

• Rabosio, Righetto, Spelta, Pammolli. Connected from the outside: The role of US regions in promoting the integration of the European research system. Quantitative Science Studies (2020). https://doi.org/10.1162/qss_a_00034

• Spelta Flori, Pecora, Buldyrev, Pammolli. A behavioral approach to instability pathways in financial markets. Nature Communications (2020). https://doi.org/10.1038/s41467-020-15356-z

• Spelta, Flori, Pecora, Pammolli. Financial Crises: uncovering self-organized patterns and predicting stock market instability. Journal of Business Research (2020), https://doi.org/10.1016/j.jbusres.2019.10.043

• Flori, Lillo, Pammolli, Spelta. Better to Stay Apart. asset commonality, bipartite network centrality, and investment strategies. Annals of Operations Research (2019), https://doi.org/10.1007/s10479-019-03277-0

• Giudici, Hadij-Misheva, Spelta. Network Based Scoring Models to Improve Credit Risk Management in Peer to Peer Lending Platforms, Frontiers Artificial Intelligence (2019), https://doi.org/10.3389/frai.2019.00003

• Giudici, Huang, Spelta. Trade networks and economic fluctuations in Asian countries, Economic Systems (2019), https://doi.org/10.1016/j.ecosys.2019.100695

• Righetto, Spelta, Rabosio, Pammolli. Long-term correlations in short, non-stationary time series: An application to international R&D collabo- rations, Journal of Informetrics (2019), https://doi.org/10.1016/j.joi.2019.02.010

• Avdijev Giudici Spelta. Measuring contagion risk in international banking, Journal of Financial Stability (2019), https://doi.org/10.1016/j.jfs.2019.05.014

• Spelta, Pecora, Rovira. Identifying Systemically Important Banks: a temporal approach for macroprudential policies, Journal of Policy Modeling (2018), https://doi.org/10.1016/j.jpolmod.2018.06.004

• Spelta, Flori, Pammolli. Investment Communities: Behavioral Attitudes and Economic Dynamics, Social Networks (2018), https://doi.org/10.1016/j.socnet.2018.07.004

• Rovira, Spelta. Identify systemically important financial institution: a network approach, Computational Management Science (2018) https://doi.org/10.1007/s10287-018-0327-8

• Giudici, Sarlin, Spelta. The interconnected nature of financial systems: Direct and common exposures, Journal of Banking and Finance (2017) https://doi.org/10.1016/j.jbankfin.2017.05.010
• Neimzada, Pecora, Spelta. Money feedback rules and equilibrium determinacy in pure exchange overlapping generation models, Ma croeco- nomic Dynamics (2017)https://doi.org/10.1017/S1365100516001103
• Ascari, Pecora, Spelta. Booms and burst in a housing market with heterogeneous agents, Macroeconomic Dynamics (2017) https://doi.org/10.1017/S1365100516000882
• Spelta. Financial market predictability with tensor decomposition and links forecast, Applied Network Science (2017) https://doi.org/10.1007/s41109-017-0028-1
• Pecora, Rovira, Spelta. Discovering SIFIs in Interbank Communities, Plos One (2016) https://doi.org/10.1371/journal.pone.0176542
• Pecora, Spelta. A multi-way analysis of international bilateral claims, Social Networks (2016) https://doi.org/10.1016/j.socnet.2016.12.004
• Agliari, Massaro, Pecora, Spelta. Inflation targeting, recursive inattentiveness and heterogeneous beliefs, Journal of Money Credit and Banking (Forthcoming) https://doi.org/10.1111/jmcb.12425
• Pecora, Spelta Managing monetary policy in a New Keynesian model with many beliefs types, Economics Letters (2016) https://doi.org/10.1016/j.econlet.2016.11.007
• Giudici, Spelta. Graphical network models for international financial flows, Journal of Business and Economic Statistics (2016) http://dx.doi.org/10.1080/07350015.2015.1017643
• Agliari, Pecora, Spelta. Coexistence of equilibria in a New Keynesian Model with heterogeneous beliefs, Chaos Solitons and Fractals (2015) https://doi.org/10.1016/j.chaos.2015.05.016
• Pecora, Spelta. Shareholding relationships in the Euro Area banking market: a network perspective, Physica A (2015) https://doi.org/10.1016/j.physa.2015.04.011
• Spelta, Araujo. Structural changes in cross-border liabilities: a multidimensional approach, Physica A (2013) https://doi.org/10.1016/j.physa.2013.10.004
• Araujo. Spelta. The topology of cross-border exposures: Beyond the minimal spanning tree approach, Physica A (2012) https://doi.org/10.1016/j.physa.2012.05.071