Anna Maria Fiori

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Education

University of Milano-Bicocca   *Milano (Italy)*
PhD Statistics   *2005*

HEC - University of Lausanne   *Lausanne (Switzerland)*
MSc Economics   *2000*
- Prix d'école (university award for the highest grade average)

HEC - University of Lausanne   *Lausanne (Switzerland)*
FAME Certificate in Financial Asset Management and Engineering   *2000*
- Prize for outstanding performance

Università Cattolica del Sacro Cuore   *Milano (Italy)*
BS Statistics and Economics   *1999*
- Agostino Gemelli prize for the best graduate in Statistics

Academic Positions

2005-	**Assistant Professor in Statistics**, Department of Statistics and Quantitative Methods, University of Milano-Bicocca (Italy).
2015-2016	**Assistant Professor in Quantitative Methods**, Department of Economics and Quantitative Methods, IÉSEG School of Management, Paris–La Défense (France).

Professional Memberships

2025-2029	**CoDa Association – Compositional Data Modeling**, Council member (elected March 2025).
2005-	**Italian Statistical Society (SIS)**, ordinary member.
2001-	**Swiss Finance Institute**, Alumni Association member.

Awards & Grants

Research

2014	**Dauphine Risk Foundation: research grant**, project: "Loss aversion, prudence and the demand for insurance", joint with L. Eeckhoudt and E. Rosazza Gianin. Role: participant.	*Paris (France)*
2013	**Dauphine-Amundi Chair in Asset Management: research prize**, project: "Downside loss-averse behaviours and risk measurement: VaR, CVaR and lower partial risk measures", joint with L. Eeckhoudt and E. Rosazza Gianin. Role: coordinator.	*Paris (France)*

Educational

2025	**PNRR-funded School "Numbers, data, decisions: A journey into statistics"**, University of Milano-Bicocca. Role: coordinator and instructor. Topics: data literacy and introductory statistics; foundations of AI – biostatistics – demography and social statistics; statistics in sports. Teaching methods: emphasis on student engagement and experiential learning, with activities and resources delivered through the university's Moodle platform (four modules, 15 hours total). Target audience: high school students.	*First edition: winter 2025*

2024-2025	**PNRR-funded course: Statistics for everyone**, University of Milano-Bicocca. Role: project coordinator and instructor. Topics: introductory statistics, with real-world applications. Teaching methods: emphasis on active engagement and experiential learning; we developed a modular course delivered through the university learning platform (5 to 15 hours, tailored to specific requests of different high schools).	*Editions: 2024, 2025.*
2024	**PNRR-funded project: STEMPATHY and LANGUAGES PLUS**, joint project between University of Milano-Bicocca and a local High School. Role: instructor. Topics: foundations of time series analysis, with climate-related applications. Teaching methods: active engagement and experiential learning, supported by hands-on activities in the computer lab. Target audience: high school students.	*Edition: fall 2024*

Teaching Experience

UNIVERSITY OF MILANO-BICOCCA (ITALY)

2007-	**Statistics (Statistica I)**, bachelor cycles (Economics – various specializations)
2009-	**Actuarial Risk Theory (Rischi assicurativi)**, master cycle (Economics and Finance)
2006-2011	**Probability, distribution theory and regression analysis (Probabilità, distribuzioni e regressione multipla)**, bachelor cycles (Economics; Statistics)
2005-2006	**Statistical quality control (Controllo statistico della qualità)**, master cycle (Economics, Statistics and Computer Science)
2005-2006	**Probability and statistics (Probabilità e statistica)**, Master in Energy Risk Management

IÉSEG SCHOOL OF MANAGEMENT, PARIS–LA DÉFENSE (FRANCE)

2015-2016	**Research methodology (in English)**, Grande école (master cycle)
2015-2016	**Intermediate econometrics (in English)**, Grande école (bachelor cycle)
2015-2016	**Microeconomics (in English)**, Grande école (bachelor cycle) and Master in Finance

EXTERNAL LECTURER

2024	**HR analytics (Statistica per le risorse umane)**, master cycle (Administration, Advisory & Audit, People), Università del Piemonte Orientale, Novara.
2019	**Multivariate statistics - Computer Lab with SAS (Laboratorio di analisi statistica multivariata)**, master cycle (Mathematics), Università di Milano.
2010	**Limites d'utilisation des outils statistiques dans les applications bancaires informatiques (in French)**, Erasmus visiting lecture, master cycle (LAMSADE), Université Paris-Dauphine (France).

Professional Development & Service

PEER REVIEW

ASTIN Bulletin, International Statistical Review, Insurance: Mathematics and Economics, Journal of Banking and Finance, Journal of Nonparametric Statistics, Annals of Operations Research, Science Advances, Statistical Modelling, Computational Statistics and Data Analysis, Communications in Statistics – Theory and Methods, Communications in Statistics – Simulation and Computation, Statistics, Socio-Economic Planning Sciences, Applied Economics, Mathematics, Risks, Journal of Risk and Financial Management, Sustainability, International Journal of Contemporary Hospitality Management, International Journal of Hospitality Management, Studia Geophysica et Geodaetica, Statistica & Applicazioni, Energies, Symmetry, Risk and Decision Analysis.

Professional Development

2025	**Summer School: Introduction to modern Generalised Additive Models in R**, Ca' Foscari University, Scientific Campus, Venice Mestre. Professor: Simon Wood. 23–24 June, 2025.
2023	**Online CoDa Course: training in Compositional Data analysis**, University of Girona (Spain). Advisor: Professor Germà Coenders. 09/2022 – 07/2023.
2023	**HiTEc Winter School: Bayesian semiparametric regression**, HTW Berlin. Professors/Instructors: J. Brachem, G. Callegher, T. Kneib, H. Riebl, P. Wiemann. 13–14 December, 2023.
2019	**Teach Out of the Box: seminar on teaching strategies and innovation,** University of Milano-Bicocca. Topics: learning design, video recording/video making, gamification, digital resources. Instructors: IT Department and Library Services Staff. December 18-20, 2019.

Thesis Advising

2010-present	**University of Milano-Bicocca,** *Master in Economics and Finance; Bachelor in Economics, Banking and Finance.* Supervised the theses of over 50 Master and 25 Bachelor students, including one recipient of the SCOR Actuarial Award, which recognizes the best Master thesis in actuarial science (2021).

Visiting Positions

02/2014	**Institut de Statistique, Biostatistique et Sciences Actuarielles (ISBA),** UCLouvain, Louvain-la-Neuve (Belgium). Visiting researcher (one month), invited by Prof. Michel Denuit.
06/2010	**Laboratoire d'Analyse et Modélisation de Systèmes pour l'Aide à la DEcision (LAMSADE),** Université Paris-Dauphine (France). Erasmus visiting professor (one lecture), invited by Prof. Camille Rosenthal-Sabroux.

Publications

Di Brisco, A., Ascari, R., Fiori, A., Nicolussi, F. (2025). Exploring Dependencies in Compositional Data with Graphical Models. In E. di Bella, V. Gioia, C. Lagazio, S. Zaccarin (a cura di), Statistics for Innovation III: SIS 2025, Short Papers, Contributed Sessions 2 (pp. 128–134), Springer.

Fiori, A., Rosazza Gianin, E. (2025). Compositional risk capital allocations. STATISTICAL METHODS & APPLICATIONS, 34(2), 261–290.

Fiori, A., Coenders, G. (2025). Turning Points in the Core–Periphery Displacement of Systemic Risk in the Eurozone: Constrained Weighted Compositional Clustering. RISKS, 13(2).

Fiori, A., Rosazza Gianin, E. (2023). Generalized PELVE and applications to risk measures. EUROPEAN ACTUARIAL JOURNAL, 13(1), 307–339.

Fiori, A., Porro, F. (2023). A compositional analysis of systemic risk in European financial institutions. ANNALS OF FINANCE, 19(3), 325–354.

Avellone, A., Fiori, A., Foroni, I. (2021). Portfolio Optimization with Nonlinear Loss Aversion and Transaction Costs. In M. Corazza, M. Gilli, C. Perna, C. Pizzi, M. Sibillo (Eds.), Mathematical and Statistical Methods for Actuarial Sciences and Finance (pp. 51–56), Springer, Cham.

Fiori, A., Foroni, I. (2021). Spatial Localization of Visitors Mobile Phones in a Sardinian Destinations' Network. In P. Mariani, M. Zenga (Eds.), Data Science and Social Research II: DSSR 2019. Studies in Classification, Data Analysis, and Knowledge Organization (pp. 145–155). Springer, Cham.

Fiori, A. (2020). On firm size distribution: statistical models, mechanisms, and empirical evidence. STATISTICAL METHODS & APPLICATIONS, 29(3), 447–482.

Fiori, A., Porro, F. (2020). A method to decompose the systemic risk in geographic areas. SOFT COMPUTING, 24, 8599–8606.

Fiori, A., Foroni, I. (2020). Prediction accuracy for reservation-based forecasting methods applied in Revenue Management. INTERNATIONAL JOURNAL OF HOSPITALITY MANAGEMENT, 84, 102332.

Fiori, A., Foroni, I. (2019). Reservation forecasting models for hospitality SMEs with a view to enhance their economic sustainability, SUSTAINABILITY, 11(5), 1274.

Fiori, A., Motta, A. (2019). Stochastic models for the size distribution of Italian firms: a proposal. In: Greselin, F., Deldossi, L., Bagnato, L., Vichi, M. (Eds.), Statistical Learning of Complex Data: CLADAG 2017. Studies in Classification, Data Analysis, and Knowledge Organization (pp. 111–120). Springer, Cham.

Eeckhoudt, L., Fiori, A., Rosazza Gianin, E. (2018). Risk aversion, loss aversion, and the demand for insurance. RISKS, 6(2), 60.

Fiori, A., Motta, A. (2017). The size distribution of Italian firms: An empirical analysis. In: F. Greselin, F. Mola, M. Zenga (Eds.): CLADAG 2017 Book of Short Papers.

Eeckhoudt, L., Fiori, A., Rosazza Gianin, E. (2016). Loss-averse preferences and portfolio choices: An extension. EUROPEAN JOURNAL OF OPERATIONAL RESEARCH, 249(1), 224–230.

Fiori, A., Beltrami, D. (2014). Right and left kurtosis measures: large sample estimation and an application to financial returns. STAT, 3(1), 95–108.

Fiori, A., Foroni, I., Zenga, M. (2013). Forecasting techniques for short-term demand of hotel bookings. In: Nicolussi, F., Mecatti, F. (Eds), Book of Abstracts. Italian Conference on Survey Methodology ITACOSM 2013, Libreria Universitaria Ed., 139-140.

Fiori, A., Rosazza Gianin, E., Spasova, A. (2012). Risk measures and Pareto style tails. In: Mathematical and statistical methods for actuarial sciences and finance (pp. 183–191), Springer.

Fiori, A.(2011). Extreme losses and reinsurance (in Italian). SIS Magazine, Italian Statistical Society, article n. 208.

Fiori, A.M. (2010). Two kurtosis measures in a simulation study, In: Lechevallier, Y., Saporta, G. (Eds.), Proceedings in Computational Statistics, Physica-Verlag, SpringerLink, 1007–1014.

Fiori, A., Zenga, M. (2009). Karl Pearson and the origin of kurtosis, INTERNATIONAL STATISTICAL REVIEW, 77, 40–50.

Fiori, A. (2008). Measuring kurtosis by right and left inequality orders, COMMUNICATIONS IN STATISTICS –- THEORY AND METHODS, 37 (17), 2665–2680.

Fiori, A. (2007). Kurtosis measures: tradition, contradictions, alternatives, STATISTICA & APPLICAZIONI, V (2), 185–203.

Fiori, A., Zenga, M. (2006). The standard fourth moment coefficient of kurtosis and its influence function: an early intuition by L. Faleschini, Proceedings of the Italian Statistical Society, 593–596.

Fiori, A., Zenga, M. (2005). The meaning of kurtosis, the influence function and an early intuition by L. Faleschini, STATISTICA, LXV (2), 135–144.

Conferences and Seminars

ORGANIZATION

May, 2022. *Recent advances in systemic risk assessment* (session organizer and chair), 9th International Conference on Risk Analysis (ICRA9), University of Perugia. .

INVITED TALKS AND SEMINARS

October, 2024. *Compositional methods and capital allocation: a proposal.* Seminar delivered at the Department of Economics and Business Studies, Università del Piemonte Orientale, Novara.

May, 2023. *Generalized PELVE and applications to risk measures.* European Actuarial Journal online seminar (EAJ issue 13/1).

November, 2022. *Introductory activities in descriptive statistics* (in Italian). Workshop on active teaching at universities: Experiences with Wooclap, University of Padova.

December, 2019. *Nonlinear loss aversion and portfolio optimization.* 12th International Conference of the ERCIM Working Group on Computational and Methodological Statistics (CMSTATISTICS 2019), University of London (UK).

June, 2014. *Downside loss-averse behaviours and risk measurement (VaR, CVaR and lower partial risk measures).* Annual Workshop of the Dauphine-Amundi Chair in Asset Management, Paris (FR).

REVIEWER FOR CONFERENCE PROCEEDINGS

Summer, 2023. *13th IASE Satellite Conference: Fostering Learning of Statistics and Data Science.* International Association for Statistical Education, Toronto (CA).

Regular Talks – since 2015

June, 2024. *Modeling and forecasting compositional risk capital allocations*. CoDaWork 2024, University of Girona.

September, 2023. *Systemic risk in Europe from a compositional perspective*. Correspondence Analysis and Related Methods (CARME 2023), University of Bonn.

September, 2023. *Generalized PELVE and applications to risk measures*. XLVII Annual Meeting of the Italian Association for Mathematics Applied to Social and Economic Sciences (AMASES 2023), University of Milano-Bicocca.

July, 2023. *Frequency-severity modeling of natural catastrophe losses*. 26th International Congress on Insurance: Mathematics and Economics (IME 2023), Heriot-Watt University, Edinburgh.

June, 2023. *A comparative study of green and conventional bonds*. 1st Conference on Sustainable Banking And Finance (CSBF 2023), University of Naples-Parthenope.

April, 2022. *Generalized PELVE and applications to risk measures*. XXII Workshop on Quantitative Finance (QFW 2022), University of Roma Tor Vergata.

April, 2022. *Generalized PELVE and applications to risk measures*. 10th International Conference on Mathematical and Statistical Methods for Actuarial Sciences and Finance (MAF 2022), University of Salerno.

July, 2021. *Generalized PELVE and applications to risk measures*. 24th International Congress on Insurance: Mathematics and Economics (IME 2021), online.

February, 2020. *On firm size distributions: a comparison of different size measures*. International Conference on Distributions and Inequality Measures in Economics, University of Milano-Bicocca.

June, 2019. *Portfolio optimization with nonlinear loss aversion*. 26th Forecasting Financial Markets Conference (FFM2019), Ca' Foscari University of Venice.

June, 2019. *Portfolio optimization with nonlinear loss aversion (poster)*. 20th Workshop on Quantitative Finance (QFW2019), ETH Zürich.

September, 2017. *The size distribution of Italian firms: an empirical analysis*. 11th Meeting of the CLAssification and Data Analysis Group of the Italian Statistical Society (CLADAG 2017), University of Milano-Bicocca.

September, 2016. *Insurance demand under downside loss aversion*. 43rd Seminar of the European Group of Risk and Insurance Economists (EGRIE), Limassol (Cyprus).