PERSONAL INFORMATION

Pier Giuseppe Giribone

WORK EXPERIENCES

September 2009 – Current **Financial Administration – Capital Market (BPER Banca)**

Financial Engineer (Research and Development)

November 2017 – Current **University of Genoa – Department of Economics**

Adjunct professor of:
"Risk Management Techniques" (2022/2023 and 2023/2024) – Master's Degree in "Economics and Data Science"
"Software R" (2021/2022 and 2022/2023) – Master's Degree in "Economics and Data Science"
"Software R" (2019/2020 and 2020/2021) – Master's Degree in "Economics of Financial Intermediaries"
"Matlab" (2017/2018 and 2018/2019) – Master's Degree in "Economics of Financial Intermediaries"
"Financial Risk Management" (2018/2019) – Master's Degree in "Economics of Financial Intermediaries"

Lecturer in:
"Programmig and Graphical Analys with R" (2022/2023) – PhD in "Economics and Quantitative Methods"
"Financial Analysts 1" (2016/2017, 2017/2018) – Master's Degree in "Finance Administration and Control"
"Financial Analysts 2" (2017/2018) – Master's Degree in "Finance Administration and Control"
"Risk Management" (2017/2018) – Master's Degree in "Economics of Financial Intermediaries"

Phd in Economics and Quantitative Methods – Scientific Board Member (XXXIX Cycle)

Visiting PhD Lecturer in: Forecasting using Dynamic Neural Networks (University of Leon, June 2020)

June 2022 – Current **24 Ore Business School**

Lecturer in the Master's courses:
"Credit Risk Management" and "Data science, Big Data and Artificial Intelligence in Finance"

May 2023 – Current **European School of Banking Management**

Lecturer in the Master's course:
"Risk Management, Compliance and Internal Audit"

September 2009 – November 2023 **Financial Administration (Banca CARIGE)**

Financial Engineer (Research and Development)

EDUCATION & CERTIFICATES

12th July 2022 **Master in Business Administration (MBA) – European School of Banking Management**

Exams:
Governance and Ethics [5th July 2022]
Corporate Investment Banking [30th May 2022]
Project Management [21st March 2022]
Human Resources [23rd December 2021]

Customer Relationship Management [20th September 2021]
Marketing [28th July 2021]
Corporate Finance [16th June 2021]
Management Control [7th April 2021]
Corporate Strategy [19th Febbruary 2021]
General Management [21st January 2021]

Thesis: "Essay on Banking Credit Management and Measurement" [12th July 2022]
Supervisors: prof. D. Martelli and Dr. M. Pinto

18th May 2021 — **Doctor of Philosophy (PhD) in Economics – University of Genoa (XXXIII Cycle)**

Exams:
Macroeconomics 3 [19th December 2018]
Political Economy 1+2 [10th December 2018]
Macroeconomics 2 [11th September 2018]
Macroeconomics 1 [27th July 2018]
Economic History and History of Economic Thought [27st May 2018]
Game Theory [27th March 2018]
Econometrics [15th Febbruary 2018]
Mathematics for Economists 1+2 [19th December 2017]
Microeconomics 1+2 [6th December 2017]

Thesis: "Mathematical modeling in Quantitative Finance and Computational Economics" [18th May 2021]
Supervisors: prof. M. Guerrazzi and prof. O. Caligaris

4th May 2021 — **Master in "Risk, Compliance and Internal Audit" – European School of Banking Management**

Final Exam: [4th May 2021]
Module 1: The role of Risk Management, Compliance and Internal Audit
Module 2: Risks of non-compliance
Module 3: Market and Liquidity Risk
Module 4: Credit Risk
Module 5: Operative Risk and other risk factors
Module 6: Inspections and internal model investigations

28th November 2019 — **Certified International Wealth Manager (CIWM®) – AIAF Financial School**

Exams:
Final Level 1 [8th March 2019]
Wealth Management
Final Level 2 [20th September 2019]
Wealth Planning, Financial Assets and Taxation of Financial Products

13th April 2017 — **Certified Environmental, Social and Governance Analyst (CESGA®) – EFFAS School**

ESG (Environmental Social and Governance) Final Exam: [10th March 2017]
Module 1: Introduction – Link between ESG performance and financial performance
Module 2: Fundamentals – Definitions, strategies, market driver
Module 3: Investment process chain – General integration of ESG in the investment process
Module 4: ESG integration and valuation – Identification, measurement and integration of ESG in the valuation
Module 5: A multi asset framework – Asset allocation, green bonds, impact investing
Module 6: Reporting – Analysis of different reporting standards

14th December 2016 — **Banking and Financial Diploma (B&FD) – ABI (Italian Banking Association)**

Exams:
Banking Management [13th December 2016]
Risk Management [18th October 2016]
Private Banking and Asset Management [21st July 2016]
Financial Investments and Markets [24th May 2016]
Retail and Corporate Lending [25th March 2016]
Financial Intermediation [19th January 2016]

30th November 2015 **Certified International Investment Analyst (CIIA®) – AIAF Financial School**

Exams:
Final Level 1[2015]
Corporate Finance
Economics
Financial accounting and statement analysis
Equity valuation and analysis
Final Level 2 [2015]
Fixed Income Valuation and Analysis
Derivative Valuation and Analysis
Portfolio Management
National [2014]:
Regulation
Ethics
Taxation
Foundation 1 [2014]:
Equity valuation and analysis
Financial Accounting and Statement analysis
Corporate Finance
Foundation 2 [2013]:
Fixed Income Valuation and Analysis
Economics
Foundation 3 [2013]:
Derivative Valuation and Analysis
Portfolio Management

19th December 2013 **Doctor of Philosophy (PhD) in Engineering Mathematics – University of Genoa (XXV Cycle)**

Exams:
Mathematical instruments for economics [23rd May 2012]
Simulation and modeling [12th March 2012]
Numerical methods for Partial Differential Equations [7th December 2011]
Response Surface Methodology in simulation [5th July 2010]
Partial Differential Equations and applications [28th May 2010]
Stochastic Differential Equations and applications [24th May 2010]

Thesis: "Study and implementation of MSPE technique for a reliable control of convergence in stochastic models for option pricing" - Supervisor: prof. R. Mosca,

Short Dissertation: "Metaheuristics for the individuation of optimal regions in complex industrial simulators" Supervisor: prof. R. Mosca.

31st July 2009 **Chartered Engineer – Order of Engineers**

License: A1767

19th December 2008 **Master's Degree in Industrial Engineering and Management – University of Genoa**

Thesis: "Study and implementation of mathematical models in banking management: methodologies for pricing financial instruments"
Supervisor: prof. R. Mosca,
Assistant Supervisor: Dr. A. Currao (CARIGE) and Dr. S. Ventura (CARIGE).

Short Dissertation: "Advanced researches on algorithms for the individuation of optimal regions in complex industrial simulators"
Supervisor: prof. R. Mosca.
Final mark: 110 out of 110 cum laude.

3rd November 2006 **Bachelor's Degree in Industrial Engineering and Management – University of Genoa**

Thesis: "Methodologies for the identification of optimal regions in stochastic and event-driven

simulation of complex industrial plants"
Supervisor: prof. R. Mosca.
Final mark: 110 out of 110 cum laude.

2nd July 2003 **High School – Orazio Grassi – Savona**

Scientific High School diploma. Final mark: 100/100 (first class honours).

PROFESSIONAL COURSES

15th – 20th July 2019 **"Machine Learning Algorithms for Econometricians" – SIdE Summer School**

A Summer School organized by SIdE (Italian Econometric Association) which took place at the University Residential Center of Bertinoro.
The lecturers were Prof. Arthur Charpentier (University of Quebec at Montreal, Canada) and Prof. Emmanuel Flachaire (AMSE, Aix-Marseille University, France).
Director of the School: Juri Marcucci, PhD (Bank of Italy).
Main Topics:
- GAM (Generalized Additive Models), LASSO (Least Absolute Shrinkage and Selection Operator)
- Random trees, Random forests, boosting, SVM (Support Vector Machine)
- Neural Nets, Deep Learning, Autoencoder, Nonlinear PCA (Principal Component Analysis)
- Cross-validation, bootstrap, optimization routines, causality and time series analysis

17th – 22nd June 2019 **"Ideas and theory in econometric time series" – SIdE Summer School**

A Summer School organized by SIdE (Italian Econometric Association) which took place at the University Residential Center of Bertinoro.
The lecturers were Prof. Søren Johansen and Prof. Anders Rahbek (University of Copenhagen).
Director of the School: Juri Marcucci, PhD (Bank of Italy).
Main Topics:
- Cointegration and adjustment in a common trends causal model and the role of weak exogeneity.
- Optimal hedging and cointegration in the presence of heteroscedastic errors.
- Bootstrap based inference in stationary and non-stationary autoregressive models.
- Models, Methods and Big Data

24th – 28th July 2017 **Workshop in Computational Econometrics – SEEC 2017**

A Ph.D. Summer School organized by the University of Salento – Faculty of Economics.
Main Topics:
- Matlab and Python languages
- Vector Autoregression (VAR models)
- State Space Models and Kalman Filter
- DSGE (Dynamic Stochastic General Equilibrium) models

5th – 9th June 2017 **"Machine Learning: a computational intelligence approach" – MLCI 2017**

A Ph.D. Summer School organized by the University of Genoa – Faculty of Engineering.
Main Topics:
- Fuzzy sets and Fuzzy Logic
- Fuzzy, Spectral and Kernel clustering
- Artificial Neural Networks: Multi-layer feed-forward networks and autoencoders
- Restricted Boltzmann Machines and Deep Learning

PUBLICATIONS

April 2024 **Risk Management Magazine, Vol. 19, N. 1**
Scientific Paper Title: "Portfolio optimization and risk management through Hierarchical Risk Parity and Logic Learning Machine: a case study applied to the Turkish stock market".
Authors: G. Gaggero, P. G. Giribone, M. Muselli, E. Ünal, D. Verda

December 2023 **Risk Management Magazine, Vol. 18, N. 3**
Scientific Paper Title: “Modeling the interest rates term structure using Machine Learning: a Gaussian process regression approach”.
Authors: A. Delucchi, P.G. Giribone

August 2023 **Risk Management Magazine, Vol. 18, N. 2**
Scientific Paper Title: “Analysis of numerical integration schemes for the Heston model: a case study based on the pricing of investment certificates”.
Authors: M. Fusaro, P.G. Giribone, A. Tissone

August 2023 **International Journal of Financial Engineering, Vol.10, N. 3**
Scientific Paper Title: “Investment certificates pricing using a Quasi-Monte Carlo framework: Case-studies based on the Italian market”.
Authors: A. Bottasso, M. Fusaro, P.G. Giribone, A. Tissone

April 2023 **Risk Management Magazine, Vol. 18, N. 1**
Scientific Paper Title: “Implementation of variance reduction techniques applied to the pricing of investment certificates”.
Authors: A. Bottasso, M. Fusaro, P.G. Giribone, A. Tissone

15th March 2023 **Italian Association of Financial Industry Risk Managers (AIFIRM) Educational Book Series**
Book Title: “Notes on Quantitative Financial Analysis”
ISBN: 979-12-80245-19-9
Author: P. G. Giribone

August 2022 **Risk Management Magazine, Vol. 17, N. 2**
Scientific Paper Title: “Current and prospective estimate of counterparty risk through dynamic neural networks”.
Authors: A. Agnese, P. G. Giribone, F. Querci

February 2022 **Bulletin of Economic Research**
Scientific Paper Title: “The dynamics of working hours and wages under implicit contracts”.
Authors: M. Guerrazzi, P. G. Giribone

December 2021 **Risk Management Magazine, Vol. 16, N. 3**
Scientific Paper Title: “Deep Learning for seasonality modelling in Inflation-Indexed Swap pricing”.
Authors: P. G. Giribone, D. Martelli

August 2021 **Frontiers in Artificial Intelligence: AI in Finance**
Scientific Paper Title: “Implementation of a Commitment Machine for an Adaptive and Robust Expected Shortfall Estimation”.
Authors: M. Bagnato, A. Bottasso, P. G. Giribone

August 2021 **Risk Management Magazine, Vol. 16, N. 2**
Scientific Paper Title: “Certificate pricing using Discrete Event Simulations and System Dynamics theory”.
Authors: P. G. Giribone, R. Revetria

July 2021 **Springer Nature (SN) Business & Ecomomics, Vol. 1, N. 102**
Scientific Paper Title: “Dynamic wage bargaining and labour market fluctuations: the role of productivity shocks”.
Authors: M. Guerrazzi, P. G. Giribone

April 2021 **Risk Management Magazine, Vol. 16, N. 1**
Scientific Paper Title: “Design of an algorithm for an adaptive Value at Risk measurement through the implementation of robust methods in relation to asset cross-correlation”.
Authors: M. Bagnato, A. Bottasso, P. G. Giribone

December 2020 **Risk Management Magazine, Vol. 15, N. 3**
Scientific Paper Title: “Critical analysis of the most widespread methodologies for the simulation of the short rate dynamics under extreme market conditions”.
Author: P. G. Giribone

August 2020 **Risk Management Magazine, Vol. 15, N. 2**
Scientific Paper Title: "Study and implementation of a pricing system for the risk analysis of the EAKO (European American Knock-Out option) structured product".
Authors: M. Fabbri, P. G. Giribone

March 2020 **Risk Management Magazine, Vol. 15, N. 1**
Scientific Paper Title: "Prospective estimation of financial and risk measures using dynamic neural networks: an application to the US market".
Authors: C. Decherchi, P. G. Giribone

December 2019 **International Journal of Financial Engineering, Vol.6, N. 4**
Scientific Paper Title: "Design, implementation and validation of advanced lattice techniques for pricing EAKO – European American Knock-out option".
Authors: M. Fabbri, P. G. Giribone

September 2019 **Risk Management Magazine, Vol. 14, N. 3**
Scientific Paper Title: "Design, validation and implementation of an advanced lattice model for pricing a Flexible Forward on currencies".
Authors: P. G. Giribone, P. Raviola

August 2019 **Risk Management Magazine, Vol. 14, N. 2**
Scientific Paper Title: "Design of quantitative measures for monitoring financial risks in the emerging market of Guarantees of Origin".
Authors: A. Bottasso, P. G. Giribone, M. Martorana

April 2019 **Risk Management Magazine, Vol. 14, N. 1**
Scientific Paper Title: "Option pricing using Radial Basis Functions: an application to Garman-Kohlhagen framework".
Authors: S. Fioribello, P. G. Giribone

March 2019 **Italian Association of Financial Industry Risk Managers (AIFIRM) Position Paper N. 14**
Position Paper Title: "Artificial Intelligence: Applications of Machine Learning and Predictive Analytics in Risk Management".
Authors: S. Bonini, G. Caivano, P. Cerchiello, P. G. Giribone

January 2019 **Springer – Chapter 22 in "Neural Advances in Processing Nonlinear Dynamic Signal"**
Chapter Title: "Yield curve estimation under extreme conditions: do RBF networks perform better?"
Authors: A. Cafferata, P. G. Giribone, M. Neffelli, M. Resta

December 2018 **International Journal of Financial Engineering, Vol.4, N. 4**
Scientific Paper Title: "Combining robust Dynamic Neural Networks with traditional technical indicators for generating mechanic trading signals".
Authors: P. G. Giribone, S. Ligato, F. Penone

December 2018 **Risk Management Magazine, Vol. 13, N. 3**
Scientific Paper Title: "Modeling seasonality in inflation indexed swap through machine-learning techniques: analysis and comparison between traditional methods and neural networks
Authors: O. Caligaris, P. G. Giribone

December 2018 **International Journal of Financial Engineering, Vol.4, N. 4**
Scientific Paper Title: "Design of an artificial Neural Network battery for an optimal recognition of patterns in financial time series".
Authors: S. Fioribello, P. G. Giribone

August 2018 **Risk Management Magazine, Vol. 13, N. 2**
Scientific Paper Title: "Implementation of AFO technique for the estimation of GARCH(1,1) parameters: performance comparison with traditional solvers".
Authors: P. G. Giribone

April 2018 **Risk Management Magazine, Vol. 13, N. 1**
Scientific Paper Title: "Accounting for derivatives in non-financial companies in light of Legislative Decree no. 139/2015 and of accounting standard OIC 32".
Authors: M. Fabbri, P. G. Giribone

December 2017 **Risk Management Magazine, Vol. 12, N. 3**
Scientific Paper Title: “Volatility surface reconstruction through auto-associative neural networks: a case-study based on Nonlinear Principal Component Analysis”.
Authors: O. Caligaris, P. G. Giribone, M. Neffelli

November 2017 **International Journal of Circuits, Systems and Signal Processing, Vol. 11**
Scientific Paper Title: “An innovative nature-inspired heuristic combined with Response Surface Methodology to find the optimal region in Discrete Event Simulation Models”.
Authors: P. G. Giribone, L. Cassettari, M. Mosca, R. Mosca

September 2017 **International Journal of Financial Engineering, Vol.4, N. 2**
Scientific Paper Title: “Negative interest rates effects on option pricing: Back to basics?”.
Authors: G. Burro, P. G. Giribone, S. Ligato, M. Mulas, F. Querci

September 2017 **Risk Management Magazine, Vol. 12, N. 2**
Scientific Paper Title: “Non supervised learning paradigms for neural networks in financial markets: design of a self-organizing maps to track market anomalies”.
Authors: A. Cafferata, P. G. Giribone

June 2017 **Modern Economy, Vol. 9, N. 6**
Scientific Paper Title: “The effects of negative nominal rates on the pricing of American Calls: some theoretical and numerical insights”.
Authors: A. Cafferata, P. G. Giribone, M. Resta

March 2017 **AIFIRM Magazine – Financial Industry Risk Managers Association, Vol. 12, N. 1**
Paper Title: “Fuzzy C-means clustering as automatic algorithm for the detection of market anomalies”.
Authors: P. G. Giribone, O. Caligaris, S. Fioribello

March 2017 **International Journal of Financial Engineering, Vol.4, N. 1**
Scientific Paper Title: “The effects of negative interest rates on the estimation of option sensitivities: the impact of switching from a log-normal to a normal model”.
Authors: P. G. Giribone, S. Ligato, M. Mulas

September 2016 **AIFIRM Magazine – Financial Industry Risk Managers Association, Vol. 11, N. 3**
Article Title: “Fuzzy Logic implementation for the optimal portfolio management: modeling an investor risk aversion through soft-computing techniques”.
Authors: P. G. Giribone, O. Caligaris, S. Fioribello, S. Ligato

August 2016 **International Journal of Financial Engineering, Vol.3, N. 2**
Scientific Paper Title: “Flexible-Forward pricing through Leisen-Reimer trees: implementation and performance comparison with traditional Markov chains”
Authors: P. G. Giribone, S. Ligato

June 2016 **AIAF (Italian Association of Financial Analysts) Magazine, Vol. 99**
Article Title: “Consideration on the current state of option pricing having Euribor as underlying parameter”
Authors: P. G. Giribone, S. Ligato

June 2016 **AIFIRM Magazine – Financial Industry Risk Managers Association, Vol. 11, N. 2**
Article Title: “Design of a robust calibration of the Hull-White stochastic tree through the implementation of global search heuristic”
Authors: P. G. Giribone, S. Fioribello, S. Ligato

March 2016 **Applied Mathematical Sciences, Vol. 10, N. 20**
Scientific Paper Title: “Attraction Force Optimization (AFO): a deterministic nature-inspired heuristic for solving optimization problems in stochastic simulation”
Authors: P. G. Giribone, L. Cassettari, S. Fioribello, I. Bendato

October 2015 **Applied Mathematical Sciences, Vol. 9, N. 124**
Scientific Paper Title: “Monte Carlo method for pricing complex financial derivatives: an innovative approach to the control of convergence”
Authors: P. G. Giribone, R. Mosca, L. Cassettari, I. Bendato

September 2015 **AIFIRM Magazine - Financial Industry Risk Managers Association, Vol. 10, N. 3**
Article Title: “Modeling the yield curves through machine-learning techniques: analysis and comparison

between traditional regressive methods and neural networks"
Authors: P. G. Giribone, O. Caligaris

June 2015 **AIFIRM Magazine - Financial Industry Risk Managers Association, Vol. 10, N. 2**
Article Title: "Application of a feed-forward Neural Network for the reconstruction of volatility surfaces"
Authors: P. G. Giribone, S. Ligato, O. Caligaris

June 2015 **International Journal of Financial Engineering, Vol. 2, N.2**
Scientific Paper Title: "Option pricing via Radial Basis Functions: Performance comparison with traditional numerical integration scheme and parameters choice for a reliable pricing"
Authors: P. G. Giribone, S. Ligato

December 2014 **AIFIRM Magazine - Financial Industry Risk Managers Association, Vol. 9, N.4**
Article Title: "Proposal and validation of a new heuristic applied to the calibration of stochastic interest-rate trees: the Attraction Force Optimization (AFO)"
Authors: P. G. Giribone, S. Ligato, S. Fioribello

June 2014 **ASSIOM Forex – The Financial Markets Association – Magazine Vol. 14**
Article Title: "Study and implementation of the Credit Value Adjustment in an automatic pricing framework"
Authors: P. G. Giribone, P. Raviola, S. Ligato

June 2014 **AIFIRM Magazine - Financial Industry Risk Managers Association, Vol. 9 N.1**
Article Title: "Designing a reliable control of the error committed by the introduction of low-discrepancy sequences in a Monte Carlo pricing framework".
Authors: P. G. Giribone, S. Ligato

July 2013 **MathWorks – User Story**
Article Title: "Carige Bank integrates a MATLAB based valuation library with its enterprise pricing and risk platform".
Authors: P. Raviola, S. Ligato, P. G. Giribone

June 2013 **AIFIRM Magazine - Financial Industry Risk Managers Association, Vol. 8 N.2**
Article Title: "Methodologies for improving the rate of convergence in Monte Carlo simulations: Analysis and implementation in a pricing framework".
Authors: P. G. Giribone, S. Ligato

June 2012 **AIFIRM Magazine - Financial Industry Risk Managers Association, Vol. 7 N.2**
Article Title: "Bias correction using conditional montecarlo technique: analysis and implementation in an automatic pricing system".
Authors: P. G. Giribone, S. Ligato, S. Ventura

December 2011 **AIFIRM Magazine - Financial Industry Risk Managers Association, Vol. 6 N.4**
Article Title: "Critical analysis of methods for the generation of valid correlation matrix: Theory and comparison in pricing systems based on Monte Carlo".
Authors: P. G. Giribone, S. Ligato

March 2011 **AIFIRM Magazine - Financial Industry Risk Managers Association, Vol. 6 N.1**
Article Title: "Study of convergence in discrete multinomial equity pricing models: theory and applications for controlling errors".
Authors: P. G. Giribone, S. Ventura

December 2010 **Applied Mathematical Sciences, Vol.4, N. 76**
Scientific Paper Title: "The stochastic analysis of investments in industrial plants by simulation models with control of experimental error: theory and application to a real business case".
Authors: L. Cassettari, P. G. Giribone, M. Mosca, R. Mosca

March 2010 **AIFIRM Magazine - Financial Industry Risk Managers Association, Vol. 5 N.1**
Article Title: "MSPE and Monte Carlo pricing method: techniques of convergence in financial models".
Authors: R. Mosca, L. Cassettari, P. G. Giribone

CONFERENCE PROCEEDINGS

12th April 2024 **XXV Workshop on Quantitative Finance – QFW 2024**
Title: "Risk and Intelligence: Exploring the intersection of Finance, Insurance and Artificial Intelligence".

(University of Bologna)
Author: P. G. Giribone

12th December 2023 **New Frontiers in Banking and Capital Markets, 5th edition on Artificial Intelligence**
Title: "Hedging BTP Italia and other inflation indexed bonds: a comparison between a standard and a Deep Learning approach using a LSTM network". (University of Rome, Sapienza)
Author: P. G. Giribone, D. Martelli

17th November 2023 **Forum Nazionale Antiriciclaggio**
Title: "Intelligenza Artificiale, Machine Learning e Deep Learning". (Milano, Palazzo Emilio Turati)
Author: P. G. Giribone

11th October 2023 **Convegno AIFIRM: "Rischi di mercato: ricerca e nuove sfide per il risk management"**
Title: "Risk Management Magazine: Studi ed Approfondimenti di Finanza Quantitativa". (Milano, Fondazione Stelline)
Author: P. G. Giribone

4th April 2023 **European School of Banking Management – Risk, Compliance and Internal Audit**
Title: "Artificial Intelligence and the new scenarios for Risk Management".
Author: P. G. Giribone

26th November 2021 **XXVI National Conference of Labour Economics**
Title: "The dynamics of Working Hours and Wages under Implicit Contracts".
Authors: M. Guerrazzi, P. G. Giribone

28th May 2021 **Network Models for Financial Contagion and Systemic Risk – Session: Models for risks**
Title: "Implementation of a Commitment Machine for an adaptive and robust Expected Shortfall estimation"
Authors: M. Bagnato, P. G. Giribone

25th October 2020 **DATA ANALYTICS 2020 – Special Session: FinTech Risk Management**
Title: "Seasonality Modeling through LSTM Network in Inflation-Indexed Swaps"
Author: P. G. Giribone

23th October 2020 **SIE (Italian Economist Association) Annual Scientific Meeting**
Title: "Dynamic Wage Bargaining and Labour Market Fluctuations: the role of productivity shocks".
Authors: M. Guerrazzi, P. G. Giribone

10th June 2020 **International Conference on Environment and Electrical Engineering - EEEIC 2020**
Title: "Electricity Spot Prices Forecasting for MIBEL by using Deep Learning: a comparison between NAR, NARX and LSTM networks ". (Technical Area: Regulation and Electricity Markets)
Authors: M. de Simon-Martin, S. Bracco, E. Rosales-Asensio, G. Piazza, F. Delfino, P. G. Giribone

5th February 2020 **Labour Economics Conference – University of Pisa**
Title: "The dynamics of Working Hours and Wages under Implicit Contracts".
Authors: M. Guerrazzi, P. G. Giribone

24th October 2019 **SIE (Italian Economist Association) Annual Scientific Meeting – Palermo**
Title: "The dynamics of Working Hours and Wages under Implicit Contracts".
Authors: M. Guerrazzi, P. G. Giribone

24th July 2019 **Accounting, Finance and Economics Conference – University of Waikato (New Zealand)**
Title: "The dynamics of Working Hours and Wages under Implicit Contracts".
Authors: M. Guerrazzi, P. G. Giribone

11th April 2019 **AIFIRM (Italian Association of Risk Management) Position paper presentation – Milan**
Title: "Artificial Intelligence in Risk Management: Machine Learning methods in application to market risk".
Authors: A. Agosto, P. G. Giribone

6th December 2018 **XIV Convention AIFIRM (Italian Association of Risk Management) – Milan**
Title: "Artificial Intelligence: Applications of Machine Learning and Predictive Analytics in Risk Management".
Authors: S. Bonini, G. Caivano, P. Cerchiello, P. G. Giribone

25th January 2018 **XIX Quantitative Finance Workshop, QFW2018 – UniRoma3**
Title: "Interest rates term structure models and their impact on actuarial forecasting".
Authors: A. Cafferata, P. G. Giribone, M. Resta

28th November 2017 **XIII Convention AIFIRM (Italian Association of Risk Management) – Milan**
Title: “Machine Learning: a diagnostic tool for the detection of market anomalies”.
Authors: A. Cafferata, P. G. Giribone

14th June 2017 **ABI (Italian Banking Association) “Risk and Supervision 2017”, Market Risk – Rome**
Title: “Pricing and Hedging problems linked with negative interest rates”.
Author: P. G. Giribone

15th June 2017 **WIRN 2017, 27th Italian Workshop on Neural Networks Proceedings**
Title: “Yield curve estimation under extreme conditions: do RBF networks perform better”.
Authors: A. Cafferata, P. G. Giribone, M. Neffelli, M. Resta

16th November 2016 **XII Convention AIFIRM (Italian Association of Risk Management) – Milan**
Title: “Quantitative finance studies and insights”.
Author: P. G. Giribone

28th August 2016 **IEEE International Conference on Mathematics and Computers in Sciences and Industry MCSI'16 Conference Proceedings**
Title: “Optimization of stochastic discrete event simulation models using AFO heuristic”.
Authors: P. G. Giribone, L. Cassettari, S. Fioribello, I. Bendato

4th November 2014 **MATLAB EXPO (Milan) - Conference Proceedings, session: Technical Computing**
Title: “MATLAB in CARIGE: Estimation of the Credit and Debt Value Adjustment (CVA/DVA)”
Authors: P. Raviola, P. G. Giribone, S. Ligato

14th June 2012 **WSEAS International Conference on Mathematics and Computers in Business and Economics - MCBE'12 Conference Proceedings**
Title: “Reliable control of convergence in Monte Carlo pricing methods for options based on MSPE techniques”.
Authors: R. Mosca, L. Cassettari, P. G. Giribone

25th November 2010 **DOGE.I (Organizational and economic management disciplines) – University of Genoa**
Title: “An innovative approach to the Monte Carlo Pricing method: the control of convergence in financial options through the evolution of experimental error”.
Author: P. G. Giribone

LECTURES AND SEMINARS

23rd May 2022 **Master’s Degree in Industrial Engineering and Management – University of Genoa**
Lecture: “La MSPE nei metodi Monte Carlo per il pricing di opzioni”.

20th March 2024 **Course Seminar “Empirical Analysis of Financial Markets” – Unito**
Lecture: “Reti neurali dinamiche: Aspetti teorici e Case Study”.

20th January 2024 **International Master in Risk Management, Module: Finance and Derivatives – Unipi**
Online Lecture: “Option pricing: A practical approach using Matlab”.

25th October 2023 **Open Lesson in “Data Science, Big Data and AI per la Finanza” – 24Ore School**
Webinar: “Oltre Markowitz: tecniche di ML per l'ottimizzazione di portafoglio”.

1st June 2023 **Master’s course in Risk Management, Compliance and Internal Audit - ESB**
Lecture: “Forward-looking Value-at-Risk: a deep learning approach”.

9th May 2023 **Master’s Degree in Management for Energy and Environmental Transition – Unige**
Lecture: “Risk Management: Theory for the case studies”.

23rd May 2022 **Master’s Degree in Industrial Engineering and Management – University of Genoa**
Lecture: “Certificate Risk Analysis using a Monte Carlo framework”.

11th March 2022 **Master’s Degree in Industrial Engineering and Management – University of Genoa**
Lecture: “Bellman’s Principle of Optimality and Option Pricing”.

20th May 2021 **Master’s Degree in Industrial Engineering and Management – University of Genoa**
Online Lecture: “Option Pricing: the Radial Basis Functions (RBF) approach”.

14th April 2021	**DEM Seminar Series, Faculty of Economics – University of Pavia** Online Lecture: "The impact of seasonality on Inflation-Indexed Swaps Valuation".
12th April 2021	**Master's Degree in Industrial Engineering and Management – University of Genoa** Online Lecture: "Option Pricing: the Finite Elements Method (FEM) approach".
14th July 2020	**AIFIRM – REFINITIV Webinar – Valuation Risk Management in the age of crisis** Webinar: "The impact of negative interest rates on pricing: considerations and methods for the fair value and risk measures"
June 2020	**Visiting Lecture Notes, University of Leon (Depto. De Ing. Electrica y de Sistemas)** Online Lectures: "Prices forecasting using Dynamic Neural Networks: from NAR to LSTM networks".
29th May 2020	**Master's Degree in Industrial Engineering and Management – University of Genoa** Online Lecture: "EAKO Option Pricing: Advanced Lattice Techniques".
22nd May 2020	**Master's Degree in Industrial Engineering and Management – University of Genoa** Online Lecture: "Artificial Bee Colony: theory and applications in Response Surface Methodology".
27th May 2019	**Phd in Economics – University of Genoa** Seminar: "Introduction to Matlab modeling".
24th May 2019	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Implementation of Fuzzy Logic for modeling investor's risk aversion".
10th May 2019	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Continuous Ant Colony Optimization: theory and applications in Response Surface Methodology".
11th March 2019	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Design, Implementation and Validation of a Financial Forecasting Neural Network".
15th May 2018	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Deep Learning and technical analysis: Design of a neural networks battery for the automatic identification of financial patterns".
2nd April 2018	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Analytical derivation of the plain vanilla option greeks".
21st March 2018	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Particle Swarm Optimization: theory and applications in Response Surface Methodology".
3rd May 2017	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Attraction Force Optimization in application to stochastic discrete event simulation".
26th April 2017	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Statistical analysis of the optimal region in industrial stochastic simulators: the Box-Hunter methodology".
22nd March 2017	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Numerical approximation of finite difference methods in application to Black-Scholes-Merton pricing model".
17th November 2016	**Master's Degree in Energy Engineering – University of Genoa** Lecture: "Symbolic analysis using Maple".
6th April 2016	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Theory and applications of feed-forward neural networks in Response Surface Methodology".
16th March 2016	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "A modified version of k-opt methodology in application to Response Surface Methodology".
9th March 2016	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Triangular mesh methodologies in RSM (Response Surface Methodology)".

24th November 2015	**Master's Degree in Energy Engineering – University of Genoa** Lecture: "Stochastic processes for modeling the price of Italian electricity".
23rd October 2015	**Mathworks – Programming Techniques with Matlab 2015 – Genoa** Seminar: "Research and Development in the Financial Administration of CARIGE Bank".
3rd September 2015	**Ph.D. in Mathematics Engineering – University of Genoa** Seminar: "Critical analysis of AFO (Attraction Force Optimization) heuristic".
8th May 2015	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Optimization inspired by thermodynamic simulations: theory and applications".
6th May 2015	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Multi-objective optimization techniques: theory and applications".
10th April 2015	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Tabu search metaheuristic: theory and applications".
27th January 2015	**Mathworks Webinar** Webinar: "Counterparty risk and Credit Valuation Adjustment (CVA) using Matlab".
24th July 2014	**Ph.D. in Mathematics Engineering – University of Genoa** Seminar: "Implementation of AFO heuristic for the calibration of interest rates stochastic trees".
7th May 2014	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Attraction Force Optimization: Proposal and validation of a new technique".
16th April 2014	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Geometric generalization of the Nelder and Mead simplex".
16th April 2014	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Analytical derivation of the Black-Scholes closed formula".
2nd April 2014	**Master's Degree in Mathematics – University of Genoa** Seminar: "Numerical control of the error in Black-Scholes alternative Monte Carlo pricing methods".
19th March 2014	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Quasi Monte Carlo methods in financial simulators: theory, applications and control".
10th April 2013	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Techniques for reducing variance in financial simulators".
28th November 2012	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Techniques for controlling variance in financial simulators".
3rd May 2012	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Stochastic models for the dynamics of shares".
4th April 2012	**Ph.D. in Public Finance and Economics – University of Genoa** Lecture: "Matlab Fundamentals".
25th May 2011	**Master's Degree in Industrial Engineering and Management – University of Genoa** Seminar: "Numerical methodologies for optimization".

PERSONAL SKILLS

Mother tongue	Italian
Other language(s)	English
	First Certificate in English language (FCE Exam session:June 2006)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
B2	B2	B2	B2	B2

OTHER SKILLS

- **Information Technology: Software** :

Operating System:

- Microsoft Windows (all versions);
- Linux Ubuntu;
- Android

Programming Languages:

- DOT. NET C#;
- Visual Basic;
- VBA (Visual Basic for Applications);
- SQL;
- Python
- Java (Base);
- Javascript (Base);
- PHP (Base);
- C++ (Base)

Word Processor:

- TeX;
- LaTeX

Software for mathematical and statistical analysis:

- Matlab;
- R;
- Julia;
- Maple;
- Wolfram Mathematica;
- Design Expert

Software for numerical simulation:

- Simulink;
- Simul8;
- Stella;
- Power Sim

Software for web editing:

- Joomla;
- Wordpress;

Software for graphics:

- Adobe Photoshop;
- Gimp

Software for database management:

- Microsoft Access;
- Sybase;

- Aquadata Studio;
- IBM-DB2 (Base)

Software for office applications:

- Microsoft Office;
- Apache - Open Office
- The Document Foundation – Libre Office

- **Comunication Skills**

Good propensity for teamwork and a goal oriented approach

- **Organization / Managerial Skills**

Good inclination to manage universitary research group

- **Membership**

AIFIRM (Financial Industry Risk Managers Association) – Author, Referee, Associate Editor
FINMAB – Finance MathWorks Advisory Board Member
ALIMA (Association for the teaching of Mathematics) – Member
UMI (Italian Mathematics Association) – Member
SIdE (Italian Econometric Association) – Member
AIAF (Italian Association of Financial Analysts) – Member and Author
Frontiers Research Foundation – Review Editor (Artificial Intelligence in Finance)
Reviewer of the American Mathematical Society (AMS)
ACEPI (Italian Association of Certificate and Investment Products) – Research committe