PERSONAL INFORMATION

Pier Giuseppe Giribone

WORK EXPERIENCES

September 2009 – Current

Financial Administration (Carige Bank - Genoa)
Financial Engineer (Research and Development)

November 2017 – Current

University of Genoa – Department of Economics
Adjunct professor in:
“Software R” (2019/2020)
“Matlab” (2017/2018 and 2018/2019)
“Financial Risk Management” (2018/2019)
Lecturer in:
“Financial Analysts 1” (2016/2017 and 2017/2018)
“Financial Analysts 2” (2017/2018)
“Risk Management” (2017/2018)
Visiting PhD Lecturer in:
Forecasting using Dynamic Neural Networks (University of Leon, June 2020)

EDUCATION & CERTIFICATES

November 2017 - 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]

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

September-November 2019 **Public Speaking & Team Coaching**
A professional course for improving soft-skills organized by "CARIGE Banking Academy"

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

2018 **Train the trainer**
A course for obtaining the corporate certificate for teaching in the "CARIGE Banking Academy"

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

2015 **Financial and Business English Course**
An advanced English course

2014 **EMEA Market Forum – Barcelona 2014**
International Meeting of financial software organized by Misys

2013 **Business Continuity for Critical Resources**
A course for system administrators

2012 **Object-Oriented Programming**

A course for developing professional software using C# (DOT NET Framework)

PUBLICATIONS

May 2020 **Risk Management Magazine, Vol. 15, N. 2**
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**
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**
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**
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**
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**
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**
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"**
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**
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**
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**
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**
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**

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**
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**
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**
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**
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**
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**
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**
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**
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**
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**
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**
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**
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**
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**
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**
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**
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 **Newsletter AIFIRM – Risk Management Magazine, Vol. 9, N.4**
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 – Journal**
Title: "Study and implementation of the Credit Value Adjustment in an automatic pricing framework"
Authors: P. G. Giribone, P. Raviola, S. Ligato

June 2014 **Newsletter AIFIRM – Risk Management Magazine, Vol. 9 N.1**
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**
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 **Newsletter AIFIRM – Risk Management Magazine, Vol. 8 N.2**
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 **Newsletter AIFIRM – Risk Management Magazine, Vol. 7 N.2**
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 **Newsletter AIFIRM – Risk Management Magazine, Vol. 6 N.4**
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 **Newsletter AIFIRM – Risk Management Magazine, Vol. 6 N.1**
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**
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 **Newsletter AIFIRM – Risk Management Magazine, Vol. 5 N.1**
Title: "MSPE and Monte Carlo pricing method: techniques of convergence in financial models".
Authors: R. Mosca, L. Cassettari, P. G. Giribone

CONFERENCE PROCEEDINGS

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 **XIV Convention AIFIRM (Italian Association of Risk Management) – 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

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 Degree in Industrial Engineering and Management – University of Genoa**
Online Lecture: “EAKO Option Pricing: Advanced Lattice Techniques”.

22nd May 2020 — **Master Degree in Industrial Engineering and Management – University of Genoa**
Online Lecture: “Artificial Bee Colony: theory and applications in Response Surface Methodology”.

March 2020 — **Master Degree in Economics – University of Genoa**
Online Lectures: “Financial Education and Risk Management”.

12th February 2020 — **Master Degree in Economics – University of Genoa**
Lecture: “Game Theory in R”.

27th May 2019 — **Phd in Economics – University of Genoa**
Seminar: “Introduction to Matlab modeling”.

24th May 2019 — **Master Degree in Industrial Engineering and Management – University of Genoa**
Seminar: “Implementation of Fuzzy Logic for modeling investor's risk aversion”.

10th May 2019 — **Master 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 Degree in Industrial Engineering and Management – University of Genoa**
Seminar: “Design, Implementation and Validation of a Financial Forecasting Neural Network”.

31st May 2018 — **Master Degree in Economics – University of Genoa**
Lecture: “Value at Risk and Expected Shortfall”.

24th May 2018 — **Master Degree in Economics – University of Genoa**
Lecture: “Hedging strategies using swaps”.

17th May 2018 — **Master Degree in Economics – University of Genoa**
Lecture: “Stochastic option pricing models”.

15th May 2018 — **Master 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”.

10th May 2018 — **Master Degree in Economics – University of Genoa**
Lecture: “Deterministic option pricing models”.

3rd May 2018 — **Master Degree in Economics – University of Genoa**
Lecture: “Hedging strategies using options”.

26th April 2018 — **Master Degree in Economics – University of Genoa**
Lecture: “Hedging strategies using futures”.

19th April 2018 — **Master Degree in Economics – University of Genoa**
Lecture: “Fixed Income quantitative analysis”.

12th April 2018 — **Master Degree in Economics – University of Genoa**
Lecture: “Interest rates term structure modeling”.

9th April 2018 — **Master Degree in Economics – University of Genoa**
Lecture: “Exotic options – single asset”.

2nd April 2018 — **Master Degree in Industrial Engineering and Management – University of Genoa**

Seminar: "Analytical derivation of the plain vanilla option greeks".

26th March 2018 — **Master Degree in Economics – University of Genoa**
Lecture: "Credit Derivatives".

21st March 2018 — **Master Degree in Industrial Engineering and Management – University of Genoa**
Seminar: "Particle Swarm Optimization: theory and applications in Response Surface Methodology".

19th March 2018 — **Master Degree in Economics – University of Genoa**
Lecture: "Swap".

12th March 2018 — **Master Degree in Economics – University of Genoa**
Lecture: "Binomial option pricing models".

26th Febbruary 2018 — **Master Degree in Economics – University of Genoa**
Lecture: "Trading strategies using options".

4th May 2017 — **Master Degree in Economics – University of Genoa**
Lecture: "Standard option: pricing and risk measures".

3rd May 2017 — **Master Degree in Industrial Engineering and Management – University of Genoa**
Seminar: "Attraction Force Optimization in application to stochastic discrete event simulation".

27th April 2017 — **Master Degree in Economics – University of Genoa**
Lecture: "Fundamentals and properties of standard options".

26th April 2017 — **Master Degree in Industrial Engineering and Management – University of Genoa**
Seminar: "Statistical analysis of the optimal region in industrial stochastic simulators:
the Box-Hunter methodology".

10th April 2017 — **Master Degree in Economics – University of Genoa**
Lecture: "Futures and Forward".

6th April 2017 — **Master Degree in Economics – University of Genoa**
Lecture: "Fixed Income risk measures".

3rd April 2017 — **Master Degree in Economics – University of Genoa**
Lecture: "Term structure of interest rates".

30th March 2017 — **Master Degree in Economics – University of Genoa**
Lecture: "Fixed Income fundamentals".

22nd March 2017 — **Master 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 Degree in Energy Engineering – University of Genoa**
Lecture: "Symbolic analysis using Maple".

6th April 2016 — **Master 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 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 Degree in Industrial Engineering and Management – University of Genoa**
Seminar: "Triangular mesh methodologies in RSM (Response Surface Methodology)".

24th November 2015 — **Master 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 Degree in Industrial Engineering and Management – University of Genoa**
Seminar: “Optimization inspired by thermodynamic simulations: theory and applications”.

6th May 2015 — **Master Degree in Industrial Engineering and Management – University of Genoa**
Seminar: “Multi-objective optimization techniques: theory and applications”.

10th April 2015 — **Master 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 Degree in Industrial Engineering and Management – University of Genoa**
Seminar: “Attraction Force Optimization: Proposal and validation of a new technique”.

16th April 2014 — **Master Degree in Industrial Engineering and Management – University of Genoa**
Seminar: “Geometric generalization of the Nelder and Mead simplex”.

16th April 2014 — **Master Degree in Industrial Engineering and Management – University of Genoa**
Seminar: “Analytical derivation of the Black-Scholes closed formula”.

2nd April 2014 — **Master Degree in Mathematics – University of Genoa**
Seminar: “Numerical control of the error in Black-Scholes alternative Monte Carlo pricing methods”.

19th March 2014 — **Master 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 Degree in Industrial Engineering and Management – University of Genoa**
Seminar: “Techniques for reducing variance in financial simulators”.

28th November 2012 — **Master Degree in Industrial Engineering and Management – University of Genoa**
Seminar: “Techniques for controlling variance in financial simulators”.

3rd May 2012 — **Master 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 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:

- Macromedia Dreamweaver;
- Microsoft Frontpage Express;
- Joomla;
- Wordpress;
- JPEXS Flash Decompiler

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, Scientific Referee and Coordinator of Artificial Intelligence committee
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)