

CV - Elisa Mastrogiacomo

Education

- Feb2010: PhD in Mathematics – University of Trento. Supervisor Prof. Luciano Tubaro. Thesis title: *Stochastic differential equations on domains with boundary: various approaches*.
- June 2006: Master Degree in Mathematics – University of Trento. Supervisor Prof. Stefano Bonaccorsi. Thesis title: *Stochastic evolution equations on network*. Score: 110/110 laude
- Oct 2003: Bachelor Degree in Mathematics - University of Trento. Supervisor Prof. Luciano Tubaro. Thesis title: *Diffusion processes and partial differential equations*. Grade 110/110 laude

Academic Positions

- 1 Dec 2019 – today: Associate Professor of Mathematical Methods for Economics, Actuarial Sciences and Finance, SECS-S/06, – University of Insubria
- 29 Nov 2016 – 28 Nov 2019: Assistant Professor (Tenure track) (RTD-B), SECS-S/06, University of Insubria
- July 2016 – Nov 2016: Postdoc Research Fellowship, SECS-S/06, Politecnico di Milano
- May 2012 – Apr 2016: Borsa di ricerca Postdoc, SECS-S/06, University of Milano-Bicocca
- Aug 2010 – Apr 2012: Postdoc, MAT/06 Research Fellowship, Politecnico di Milano

Submitted papers

1. Ararat, Ç., Bilir, B., & Mastrogiacomo, E. (2022). Decomposable sums and their implications on naturally quasiconvex risk measures. arXiv preprint arXiv:2201.05686.
2. Mastrogiacomo, E., & Tarsia, M. (2021). Subgame-perfect equilibrium strategies in state-constrained recursive stochastic control problems. arXiv preprint arXiv:2105.01473.
3. Mastrogiacomo, E., & Rosazza Gianin, E. (2021). Dynamic capital allocation rules via BSDEs: an axiomatic approach. arXiv preprint arXiv:2112.08832.
4. Mastrogiacomo, E. and Albeverio, S. Large Deviation Principle for Spatial Economic Growth Model on Networks (2021). Available at SSRN: <https://ssrn.com/abstract=4034855>
5. Albeverio, S., Marinelli, C., & Mastrogiacomo, E. (2020). Singular perturbations and asymptotic expansions for SPDEs with an application to term structure models. arXiv preprint arXiv:2012.14510.

Organization and participation as a speaker at scientific conferences in Italy or abroad

- Organizer of the session **FINLAND**
- 5-9 JULY 2021 (Contributed speaker) *Multiobjective stochastic problems and their connections with multivariate risk measures*, convegno online IME 2021 Pennsylvania State University (US), Ulm University (Germany) and the University of New South Wales (Australia)
- 22–25 JUNE 2021 (Contributed speaker) *Optimization of coherent multivariate risk measures*, online conference 10th General AMaMeF Conference, Padua
- 21 NOV 2019 (INVITED) Communication *Robustness for set-valued risk measures*, Brunico
- 11 – 15 FEB 2019 (Contributed speaker) *Robustness for set-valued risk measures*, on the occasion of the set Optimization and Applications 2019 conference, Jena (Germany)
- 11 – 15 FEB 2019 (INVITED) SOFA Conference 2019, *Some ideas concerning set-valued risk measures and set-optimization*, Topical Afternoon su Set Optimization and Finance, Jena – Germania

- Organization of the conference *Random Transformations and invariance in stochastic dynamics* (together with: Prof. Fuhrman (Milano Statale), Prof. Hilbert (Linneaus University), Dott.ssa Morando (Milano Statale), Prof. Ruediger (Wuppertal), Dott.ssa Ugolini (Milano Statale), Prof. Mazzucchi (Trento)), funded by Dipartimento di Matematica Milano Statale, Dipartimento Economia Insubria, Dipartimento di Matematica Trento, Università di Wuppertal, Linneaus University, INDAM – GNAMPA. Period: 24-29 March 2019.
- Organization of the Summer School (together with Prof. Sergio Albeverio and Prof. Emanuela Rosazza Gianin): Advanced School on *Complexity and emergence: ideas, methods, with a special attention to economics and finance* funded by AMASES, INDAM, Fondazione Volta (Como), Università dell'Insubria, Università degli Studi di Milano, Università of the studios of Milano Bicocca, Insubria International Summer School. Como, 22-27 July 2018. Website: <http://ceim.lakecomoschool.org/>
- Organizer, with Prof. Emanuela Rosazza, of the session *Risk measures, pricing and game theory*, Cagliari, AMASES, 14-16 Sep 2017
- Organizer, with Prof. Emanuela Rosazza Gianin, of the session *Risk measures and pricing rules*. Catania, Amases XL from 15-09-2016 to 17-09-2016
- 21 FEB 2018 (INVITED) *Optimal investment strategies with stochastic interest rate and minimum performance constraint*, CASS BUSINESS SCHOOL, Londra
- 14 -16 SEP 2017 (Contributed speaker) AMASES XLI conference with a communication entitled *Optimal investment strategies with stochastic interest rate and minimum performance constraint*, UNIVERSITY OF CAGLIARI
- 19 - 23 JUNE 2017 (Contributed speaker) AMAMEF conference *Optimal investment strategies with stochastic interest rate and minimum performance constraint*, UNIVERSITY of AMSTERDAM
- 8 NOV 2016 (INVITED) *Portfolio optimization with Quasiconvex Risk Measures*, UNIVERSITÀ DEGLI STUDI DI VERONA, DEPARTMENT OF ECONOMICS
- 15 -17 SEP 2016 (Contributed speaker) AMASES XL conference, *Time consistency of dynamic cash-subadditive risk measures*, UNIVERSITY OF CATANIA.
- 13 APRE 2016 (INVITED) *Recent results on (quasiconvex) risk measures and related portfolio optimization problems*, POLITECNICO DI MILANO
- 12-13 NOV 2015 (Contributed speaker) Dependence and Risk Management, *Time consistency of dynamic cash-subadditive risk measures*, UNIVERSITY OF MILAN BICOCCA
- 12-13 NOV 2015 (Poster) Dependence and Risk Management con un poster di ricerca dal titolo *Jump diffusions and portfolio optimization with state-dependent risk aversion*, UNIVERSITÀ DI MILANO BICOCCA
- 01-04 SEP 2015 (Contributed speaker) Or2015 International Conference on Operation Research *Portfolio choice under Cumulative Prospect Theory: sensitivity analysis and an empirical study* UNIVERSITY OF VIENNA
- 11-13 JUNE 2015 (Contributed speaker) 5th International Conference of the Financial Engineering and Banking Society con una comunicazione dal titolo *Portfolio choice under Cumulative Prospect Theory: sensitivity analysis and an empirical study*, UNIVERSITÀ DI NANTES
- 29-30 JAN 2015 (Contributed speaker) XV Workshop on Quantitative Finance, *Portfolio choice under Cumulative Prospect Theory: sensitivity analysis and an empirical study*, UNIVERSITÀ DEGLI STUDI DI PARMA
- 7 – 9 JULY 2014 (Contributed speaker) Second Young Researchers Meeting on BSDEs, Numerics and Finance *Pareto optimal allocations and optimal risk sharing for quasiconvex risk measures*, UNIVERSITÀ DI BORDEAUX
- 28 JAN 2014 (INVITED) *Optimization of quasiconvex risk measures*, on the occasion of the mini-workshop New trends in risk measures UNIVERSITÀ DEGLI STUDI DI MILANO BICOCCA
- 11 Jan 2014 (INVITED) Short talk (20') *Some questions concerning explicit invariant measures for SDEs driven by Levy noise*, in occasione del convegno SPDEs - IX, 5-11 Jan 2014, LEVICO TERME (TN)
- 6 JUNE 2012 (INVITED) *On stochastic differential equations and its applications*, UNIVERSITÀ DEGLI STUDI DI MILANO BICOCCA. Department of Statistics and Quantitative Methods
- 7 SEP 2011 (Contributed speaker) *Some control problems for stochastic Volterra equations*, on the occasion of the conference Kolmogorov's Equations, 5-9 Sep 2011, UNIVERSITY OF PARMA
- 18 MAY 2011 (INVITED) *On a class of SDEs in infinite dimension for Neuronal Dynamics and related problems*, INSTITUT FUR ANGEWANDTE MATHEMATIK ABT. WAHRSCHEINLICHKEITSTHEORIE, BONN, GERMANIA

- 14 OCT 2010 (INVITED) *Small noise asymptotic expansions for stochastic PDE's. The case of a dissipative polynomially bounded nonlinearity*, Department of Mathematics and Applications. UNIVERSITY OF MILAN BICOCCA
- 11 FEB 2009 (INVITED) *Analysis of the stochastic FitzHugh-Nagumo system*, INSTITUT FUR ANGEWANDTE MATHEMATIK ABT. WAHRSCHEINLICHKEITSTHEORIE, BONN, GERMANIA
- 23 – 25 NOV 2009 (Contributed speaker) First PAT-CRS NeSt Project Neurostochastic with a communication entitled *Analysis of the stochastic FitzHugh-Nagumo system*, UNIVERSITY OF TRENTO
- 8 – 10 JAN 2009 (Contributed speaker) Kolmogorov's equations with a communication entitled *Analysis of the stochastic FitzHugh-Nagumo system*. UNIVERSITY OF PISA
- 24 – 28 NOV 2008, (Contributed speaker) Intensive week on Kolmogorov's Equations in Infinite Dimension and Applications *Analytic approach to stochastic Volterra equations with completely monotone kernels*. UNIVERSITY OF TRENTO
- 20 - 21 NOV 2007 (Contributed speaker) Short talk (20') Workshop "Mathematical control theory" *Optimal control of stochastic differential equations with dynamical boundary conditions*, UNIVERSITÀ MILANO BICOCCA
- 10 – 14 JUNE 2007 (Contributed speaker) Workshop "Brownian Motion and Stochastic Calculus" (final phase of the X Internet Seminar) *One dimensional diffusions*. LEVICO (TN) - ITALY
- 4 – 9 JUNE 2005 (Contributed speaker) Workshop Reaction-Diffusion Equation and Analytic Semigroup (final phase of the VIII Internet Seminar) *Stochastic Bifurcation*. CASALMAYRE (PR) - ITALY

Participation in the activities of a research group characterized by collaborations at national or international level

- Participant in the **PRIN 2010** *Evolution problems: deterministic and stochastic analyses and models and applications*. Scientific coordinator: Prof. Lunardi Alessandra; Scientific director: Prof. Luciano Tubaro; University of Trento.
- Participant in the **GNAMPA Project 2011** *Evolution equations with optimal memory and control: a deterministic and stochastic approach* coordinator Dr. E.M. Marchini.
- Participant in the **GNAMPA Project 2012** *Analysis and control for systems with memory*. Coordinator: Dr. Fulvia Confortola.
- **Research in Pairs funding**. Joint project with Prof. Sergio Albeverio and Dot. Luca di Persio: *Explicit invariant measures for stochastic differential equations driven by Lévy noise and applications*. Fondazione FBK - Cirm. March 9-15, 2014 and Nov 12-14, 2014 (<https://cirm.fbk.eu/list-research-pairs-cirm-2008-2017>).
- **Project member**: *Invariant measures for stochastic differential equations driven by Lévy noise*, King Fahd University for Petroleum and Minerals. Principal Investigator: Prof. Sergio Albeverio (Bonn), Co-Investigator: Boubaker Smii (Saudi Arabia). The project had a total duration of 18 months: from May 2013 to Nov 2014 and from Nov 2015 to Nov 2016.
- **Contribution of 1400 euros** for international mobility to teachers. The contribution was provided by the Commission for International Relations of the University of Insubria and was used for the collaboration with Prof. Sergio Albeverio of the University of Bonn on the Project *Asymptotic expansion methods for option pricing models*. (2017)
- **Contribution of 1500 euros** for international mobility to teachers. The contribution was provided by the Commission for International Relations of the University of Insubria and was used to start a collaboration with Andreas Tsanakas of the Cass Business School (2017). Project title *Risk capital measurement in multi-period and continuous time model*.
- Participant in the **PRIN 2017-2020** *Deterministic and stochastic evolution equations*, scientific coordinator: Prof. Lunardi Alessandra; Scientific Director: Prof. Tessitore Gianmario; University of Milan-Bicocca.
- Participant in the **GNAMPA Project 2020** Lie's symmetries analysis of Stochastic Optimal Control Problems with applications. Coordinator: Dot. Stefania Ugolini

Scientific responsibility for international and national research projects, admitted to funding on the basis of competitive calls for peer review

- Coordinatore del **Progetto di Ricerca GNAMPA 2016**: *Levy processes, optimal control and portfolio allocation: theoretical analysis and applications*. Dallo sviluppo di questo progetto è derivato l'articolo *Portfolio Choice Under Cumulative Prospect Theory: Sensitivity Analysis and an Empirical Study* in collaborazione con Giorgio Consigli e Asmerilda Hitaj

Prizes, awards and contributions for visiting and participating in conferences

- **National scientific qualification** (ASN) as Full Professor 01/A3 – MAT/06 (Nov 2020) and 13/D4 – SECS/S-06 (Nov 2020).
- **National scientific qualification** (ASN) as Full Professor 01/A3 – MAT/06 (Apr 2018) and 13/D4 – SECS/S-06 (Oct 2018)
- **Beneficiary FFABR 2017** as RTDb (Funding of Basic Research Activities) 3000euros
- Contribution by GNAMPA – INDAM (2017) of € 350 for the *participation at the AMASES XL conference*
- Contribution by GNAMPA – INDAM for *Professors Visitatore* respectively of € 1133.33 (2021) and € 667.00 (2020) to host Dr. Ararat (Bilkent University) at my department.

Editor of the following volumes:

- *Quantum and Stochastic Mathematical Physics - Sergio Albeverio Adventures of a Mathematician* (con Prof.ssa Barbara Rudiger (Wuppertal), Stefania Ugolini (Unimi), Sonia Mazzucchi (UniTn), Astrid Hilbert (Linneaus University));
- *Complexity and Emergence* (with Sergio Albeverio (HCM Bonn), Emanuela Rosazza Gianin (Bicocca), Stefania Ugolini (Unimi)) in print (publication scheduled for Apr 2022)
- *Geometry and Invariance in Stochastic Dynamic* (Editors: Stefania Ugolini (Unimi), Marco Fuhrman (Unimi), Paola Morando (Unimi)) Springer Proceedings in Mathematics & Statistics. Electronic ISBN: 978-3-030-87432-2

Guest editor of the journal Mathematics ISSN 2227-7390 for the special issue *Applied Mathematical Methods in Financial Risk Management* (in collaboration with Prof. Emanuela Rosazza Gianin), May 2020-Oct 2021

Formal assignment of teaching or research assignments at qualified universities and foreign or supranational research institutes

Official research assignment

- Polytechnic of Losanna, semester on Stochastic analysis and its applications Organizers: ALBEVERIO Sergio (Institut für Angewandte Mathematik, Bonn), CRUZEIRO Ana Bela (Instituto Superior Técnico, Lisboa), HOLM Darryl (Imperial College, London), 16-20 Feb2015, 03-06 June 2015. Financed by the host institution.
- Polytechnic of Losanna, semester on Geometric Mechanics, Variational and Stochastic Methods Organizers: Alang R. (EPFL), Dozzi M. (University of Nancy), Flandoli F. (University of Pisa), Russo F. (ENSTA ParisTech), 16-18 June 2012 14-16 Feb2012
- Cass Business School, collaboration with Dr. Andreas Tsanakas on the project *Risk capital measurement in multi-period and continuous time model* from 26-06-2017 to 29-06-2017
- Institute of Applied Mathematics, University of Bonn, collaboration with Prof. Sergio Albeverio on *Asymptotic expansion methods for option pricing models* from 02-12-2017 to 06-12-2017
- Cass Business School, collaboration with Dr. Andreas Tsanakas on the *project Risk capital measurement in multi-period and continuous time model* from 19-02-2018 to 23-02-2018
- Institute of Applied Mathematics of the University of Bonn, collaboration with Prof. Sergio Albeverio on the *Project Asymptotic expansion methods for option pricing models* from 04-03-2018 to 08-03-2018
- Institute of Applied Mathematics of the University of Bonn in collaboration with Prof. Sergio Albeverio on the project *Singular perturbations of HJMM interest rate models* from 14-05-2019 to 17-05-2019
- Institute of Applied Mathematics of the University of Bonn, collaboration with Prof. Sergio Albeverio on the project *Singular perturbations of HJMM interest rate models* from 15-01-2020 to 18-01-2020

Specific professional experiences characterized by research activities related to the sector insolvency proceedings for which the application for qualification is submitted

- July 2016 - May 2017: realization of the contents of the Mooc (Massive Online Open Course) for Citizens FINANCE FOR ALL, a financial literacy course that provides concepts of financial nature starting from the most elementary concepts such as interest rates, mortgages, shares, bonds, etc. The Polimi Open Knowledge is the Program of Politecnico di Milano proposing free courses of the most varied subjects, welcoming an unlimited number of participants from all over the world. The realization of the course was directed by Prof. Emilio Barucci, with the collaboration of Prof. Daniele Marazzina (Politecnico di Milano) and saw the active participation of Altroconsumo and the METID Center (Innovative Methods and Technologies for Teaching), specialized in the development of ICT tools and innovative methodologies in the field of university education and distance learning. There is also a contribution from the Bank of Italy and Consob. See: https://www.pok.polimi.it/courses/course-v1:Polimi+FinPerTutti101+2018_M1/about
- Scientific visits by invitation at the University of Bonn in the periods: 3-4 Oct 2016, 2-6 June 2014, 1-4 Oct 2013, 13-15 Apr 2013, 14-16 Jan 2013, 24-26 Oct 2012, 17-20 Feb2011

- Beneficiary of a scholarship of the amount of 18000 euros lasting three years of the University Cultural Center of the CEI (Italian Episcopal Conference). See <http://cuc.chiesacattolica.it/>. Nov 2008-Oct 2011. Project title: *Mathematical models of neuronal networks*
- Referee for Annals of Operation Research, Decision in Economics and Finance, Mathematics and Financial Economics, Mathematics of Operation Research, SIAM J. on Mathematical Finance, J. of Global Optimization, Mathematical Finance

Student service activities

Supervisor: Bachelor's Degree

- Serena Zanitelli, Bachelor Degree in Economics and Management, *Derivatives Market: Options. Analysis of the Black-Scholes-Merton model and applications with the Monte Carlo method and with Binomial Trees for the evaluation of derivatives*, achievement of the Feb2022 title
- Pietro Ragazzoni, Bachelor's Degree in Economics and Management, *Matematics and economic choices: how mathematics has contributed to the evolution of economic science*, obtaining a degree Feb2022
- Luca Franzì, Bachelor's Degree in Economics and Management, *Risk Measures, Definition and Method of Calculating Value at Risk*, Dec 2021
- Mattia, Bachelor's Degree in Economics and Management, *Discounted Cash Flow Method to estimate the value of an investment*, achievement of the title Dec 2021
- Peroni Alessandro, Bachelor's Degree in Economics and Management, *Mental Accounting and Behavioral Finance: Bias, Heuristics and distinctive features of investors and bettors*, graduation March 2019

Master's degree thesis:

- Lavinia Todaro, Master's Degree in Mathematics (University of Insubria), *Credit models with stochastic volatility*, graduation March 2019

Doctoral thesis of Marco Tarsia (PhD in Computer Science and Mathematics of Calculus, Department of Science and High Technology, University of Insubria) since Oct 2018, graduation scheduled for March / Apr 2022. Thesis title: *Subgame-perfect equilibrium strategies in constrained recursive stochastic control problems*

Supervision of the final project of the Master by Stefano Grippa for the Advanced Training Course in Quantitative Finance. Title of the paper: *A model for corporate bond pricing with jumps and stochastic volatility*, Oct 2021

Institutional activities at my Department

- Member of the Joint Commission for Student Teachers since Sep 2017 (ongoing).
- Member of the Teaching Board of the PhD Course *Methods and Models of Economic Decisions* starting from the academic year 2019/2020 (in progress)
- Responsible for the tutors of the mathematical-statistical area starting from the a.y. 2020/2021.
- Member of the AiQua Commission of the Degree Course in Economics and Management (resolution of the Department Council of 27/3/2017) until 23/11/2018.
- Member of the Commission FAR Area 13 2018-2020 (Decree of Appointment of 17 Jan 2018).
- Member of the Commission for the selection of candidates for the PhD Course *Methods and Models of Economic Decisions* XXXIII cycle (a.y. 2017/2018).
- Member of the Selection Committee for the award of grants for the incentive of didactic-integrative tutoring activities, preparatory and recovery for the a.y. 2017/2018.
- Member of the Public Selection Committee for the assignment of teaching assistant activities for the a.y. 2019/2020 – first semester.
- Member of the Selection Committee for the awarding of scholarships and scholarships and the assignment of economic benefits for international exchanges promoted by the University of Insubria of Varese and the Chamber of Commerce of Varese in the period 2019 – 2021.
- Organizer of the following Department seminars:
 - 15 Nov 2017. Supervisor: Prof. Sergio Albverio (HCM – Bonn)
 - 12 Dec 2019. Supervisor: Prof. Sergio Albverio (HCM – Bonn)
 - 24 June 2019: Realtore: Dr. Cagin Ararat (Bilkent Univeristy)
 - 5 Sep 2019. Supervisor: Prof. Claudio Macci (Uni Roma 2)

2 Oct 2019. Relatore: Prof. Samuel Cohen (Oxford)

- Organizer of the cycle of webinar "at Insubria and Bicocca" (in collaboration with Prof. Emanuela Rosazza Gianin)

Apr 2021: Dr. Cagin Ararat (Bilkent University)

May 2021: Dott. Cosimo Munari (University of Zurich)

July 2021: Dr. Matteo Brachetta (Politecnico di Milano)

Sep 2021: Prof.ssa Giulia Di Nunno (University of Oslo)

Nov 2021: Dott. Zachary Feinstein (Stevens Institute of Technology)

- Invitation of the following Visiting Professors:

Dr. Cagin Ararat (Bilkent University) – stay from 15 to 29 June 2019 and from 19 to 29 Jan 2020

Dr. Baris Bilir (Bilkent University) - stay from 19 to 29 Jan 2020

Prof. Samuel Cohen (Oxford) – stay from 30 Sep to 4 Oct 2019

Prof. Sergio Albeverio (HCM – Bonn) – stay from 12 to 14 Dec 2019

- Secretary of the Seat for the renewal of the National University Council – 14 June 2017.

Institutional activities at other universities

- LIUC University – CASTELLANZA
Dec 2021 – Jan 2022: **Member of the Selection Committee** for the selection procedure of a second-tier university Professore post in the competition sector 13-D4, scientific-disciplinary sector SECS-S/06
- Bilkent University – Turkey
July 2021: **Member of the Master Degree Committee** of Mücahit Aygün, Industrial Engineering Bilkent University. Thesis title: Dual Representation of Quasiconvex Compositions with Applications to Systemic Risk
- Politecnico di Milano, Department of Mathematics, Doctoral Programme in Mathematical Models and Methods in Engineering
July 2021: **Reviewer and member of the Committee** for Guodong Ding PhD. Thesis title: Optimal Consumption-Portfolio-Leisure Policy in Retirement-Bankruptcy Time Problem with Power Utility Function
- UNINT – Faculty of Economics of International Studies of Roma
Jan – Feb 2021: **Member of the Selection Committee** for a position of Assitant Professor (RTDa) 13-D4 Area, scientific disciplinary sector SECS-S/06
- Bilkent University – Turkey
Aug 2020: **Membro esterno della commissione di Laurea** (Master Degree) in Industrial Engineering di Baris Bilir (Bilkent University). Titolo della tesi: Decomposable sums and their implications on naturally quasiconvex risk measures

CV - Elisa Mastrogiacomo - All. 3

Teaching activities at university level

Teaching in the field of degree and Master courses

- **a.a. 2021/2022:**
UNIVERSITÀ DELL'INSUBRIA
a) Bachelor's Degree in Economics and Management – *Mathematics* (I year) – **Responsible** - 80h
b) Bachelor's Degree in Economics and Management – *Mathematics for Economics and Finance* (II year) 40h

LIUC UNIVERSITY - CASTELLANZA
c) School of Economics and Management, Bachelor's Degree in Business Administration - *Mathematics for Economics, Finance and Management* (I year) - 30h
- **a.a. 2020/2021:** UNIVERSITÀ DELL'INSUBRIA
a) Bachelor's Degree in Economics and Management – *Mathematics* (I year) – **Responsible** - 80h
b) Bachelor's Degree in Economics and Management – *Mathematics for Economics and Finance* (II year) - 40h

MIP – POLITECNICO DI MILANO
c) Advanced Training Course in Quantitative Finance - *Probability, statistics and stochastic processes for finance* - **Course holder** - 10h

- **a.a. 2019/2020:** UNIVERSITÀ DELL'INSUBRIA
 - a) Bachelor's Degree in Economics and Management – *Probability Calculation 1 (Stochastic Processes)* (III year) – **Course holder** - 20h
 - b) Bachelor's Degree in Economics and Management – *Probability Calculation 2 (Risk Measures)* (III year) – **Course holder** - 20h
 - c) Bachelor's Degree in Economics and Management – *Mathematics* (I year) 50h
 - d) Bachelor's Degree in Economics and Management – *Mathematics for Economics and Finance* (II year) - 30h

MIP – POLITECNICO DI MILANO

- e) Advanced Training Course in Quantitative Finance - *Probability, statistics and stochastic processes for finance* - **Course holder** - 10h

- **a.a. 2018/2019:** UNIVERSITÀ DELL'INSUBRIA
 - a) Bachelor's Degree in Economics and Management – *Mathematics for Economics and Finance* (II year) - 30h
 - b) Bachelor's Degree in Economics and Management – *Mathematics* (I year) – 40h
 - c) Bachelor's Degree in Economics and Management Part Time – *Mathematics II* – **Course holder** - 40h

MIP – POLITECNICO DI MILANO

- d) Advanced Training Course in Quantitative Finance - *Probability, statistics and stochastic processes for finance* - **Course holder** - 10h

- **a.a. 2017/2018** UNIVERSITÀ DELL'INSUBRIA
 - a) Bachelor's Degree in Economics and Management Part Time – *Mathematics II* – **Course holder** - 40h

MIP – POLITECNICO DI MILANO

- b) Advanced Training Course in Quantitative Finance - *Probability, statistics and stochastic processes for finance* - **Course holder** - 10h

- **a.a. 2016/2017** UNIVERSITÀ DELL'INSUBRIA
 - a) Bachelor's Degree in Economics and Management – *Mathematics Remedial Course* (I year) — **Holder of the course** - 40h

- **a.y. 2009/2010** UNIVERSITY of VERONA
 - a) Bachelor's Degree in Bioinformatics – *Mathematical Analysis II* (II year) – **Holder of the course** - 45h

Teaching in the field of research doctorates accredited by the Ministry

- PhD course *An introduction to risk measures and portfolio optimization*, a.y. 2020/2021 (total n hours: 10) and a.y. 2021/2022 (total n hours: 10) for the PhD in *Methods and Models of Economic Decisions*, Department of Economics of the University of the University of Insubria.
- PhD course *The axiomatic approach to risk measurement*, a.y. 2018/2019 (total n hours: 10) and a.y. 2019/2020 (total n hours: 10) for the PhD in *Methods and Models of economic decisions*, Department of Economics of the University of Insubria.
- In-depth seminars *SDEs and application to finance* (total n hours: 6) for the PhD in *Methods and Models of Economic Decisions*, Department of Economics of the University of Insubria. a.y. 2016/2017.

Integrative teaching activity

- a.y. 2017/2018 Master's degree in Mathematical Engineering – *Mathematical Finance II* (Prof. Carlo Sgarra) – Trainer – POLITECNICO DI MILANO
- a.y. 2017/2018 2016/2017, 2015/2016, 2013/2014, 2012/2013 Degree in Economics and Business Administration – *General Mathematics II* (Prof. Emanuela Rosazza, Prof. Giovanni Zambruno) – Exerciser – UNIVERSITY OF MILAN BICOCCA
- a.y. 2016/2017, 2015/2016, 2014/2015 Degree in Economics and Administration of Banks and Financial Intermediaries – *Mathematics for Finance* (Prof. Emanuela Rosazza Gianin and Prof. Fabio Bellini) – Exerciser – UNIVERSITY OF MILAN BICOCCA
- a.y. 2014/2015, 2013/2014, 2012/2013 Degree in Economics and Business Administration – *General Mathematics I* (Prof. Emanuela Rosazza Gianin and Dr. Ilaria Foroni) – Exerciser – UNIVERSITY OF MILAN BICOCCA
- a.y. 2014/2015, 2013/2014, 2012/2013 Degree in International Economics and Finance – *Quantitative methods in finance* (Prof. Stefano Iacus) – Exerciser. Probability and Finance (Prof. Stefano Iacus and Doc. Lorenzo Mercuri) UNIVERSITY OF MILAN

- a.y. 2014/2015, 2013/2014, 2012/2013 Degree in Political Science and International Relations – **Statistics** (Prof. Stefano Iacus and Dr. Alessandro Barbiero) – Exerciser – UNIVERSITY OF MILAN
- a.y. 2012/2013 Degree in Engineering Physics - **Analytical and statistical methods for physical engineering** (Prof. Gustavo Posta) – Trainer – POLITECNICO DI MILANO
- a.y. 2011/2012 Degree in Management Engineering – **Statistics** (Dr. Fulvia Confortola) – Trainer – Politecnico di Milano
- a.y. 2011/2012 Tutor of the course Probability, Degree Course in Mathematical Engineering, Politecnico di Milano, professor Prof.M. Fuhrman. Number of hours: 8.
- a.y. 2010/2011, 2011/2012 Master's degree in Mathematical Engineering – **Stochastic Differential Equations** (Prof. Alberto Barchielli) – Trainer – POLITECNICO DI MILANO
- a.y. 2007/2008, Bachelor's Degree in **Mathematics – Mathematical Analysis I** (Prof. Gabriele Greco) – Trainer – UNIVERSITY OF TRENTO
- a.y. 2007/2008, 2008/2009 Degree in Economics and Business Management – **Mathematics I** (Prof. Aldo Tagliani) – Trainer – UNIVERSITY OF TRENTO