Prof Roberto Renò, PhD

Curriculum Vitæ

20 febbraio 2025

ESSEC Business School
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Posizione

Dal 2023

Professor
ESSEC Business School

Posizione attuale, da Ott 2015
In aspettativa da Gennaio 2023

Professore Ordinario
Dipartimento di Scienze Economiche, Università degli Studi di Verona

Ott 2006 – Set 2015

Professore Associato
Dipartimento di Economia Politica e Statistica, Università degli Studi di Siena

2010, 2011, 2017

Professore «in visita»
Carey Business School, Johns Hopkins University, Baltimore (MD), USA

Ott 2001 – Set 2006

Ricercatore
Dipartimento di Economia Politica e Statistica, Università degli Studi di Siena

Istruzione

2005 Perfezionamento in Matematica Finanziaria, Scuola Normale Superiore, Pisa. Tesi: "Volatility Estimate via Fourier Analysis".
1998 Laurea in Fisica, Università di Pisa, 9 giugno 1998. Tesi: "Search for $\nu_\mu \to \nu_e$ oscillations in the NOMAD experiment".

Attività scientifica

Pubblicazioni principali

2025 Kolokolov, A., Renò, R. and Zoi, P., «BUMVU Estimators», **Journal of Econometrics**, forthcoming.
2025 Laurent, S., Renò, R. and Shi, S., «Realized Drift», **Journal of Econometrics**, forthcoming.
2025 Bellia, M., Christensen, K., Kolokolov, A., Pelizzon, L. and Renò, R., «Do Designated Market Makers Provide Liquidity During Extreme Downward Price Movements?», **[2025] Journal of Financial Markets**, forthcoming.
2025 Flora, M., Gianstefani, I. and Renò, R., «The liquidity uncertainty premium puzzle», **Journal of Time Series Analysis**, forthcoming.
2025 Ferrara, G., Flora, M. and Renò, R., «The impact of COVID-19 on Italian sovereign bond market quality», **Journal of Financial Services Research**, forthcoming.
2025 Fabozzi, F., Recchioni, M. C. and Renò, R. «Fifty years at the interface between financial modeling and operations research», **European Journal of Operational Research**, forthcoming.
2024 Kolokolov, A. and Renò, R., «Jumps or staleness?», **Journal of Business and Economic Statistics**, (2024), 42 (2), 516-532.
2024 Bandi, F., Pirino, D. and Renò, R., «Systematic staleness», **Journal of Econometrics**, (2024) 238 (1), 105522.
2024 Menkveld, A. et al., «Nonstandard Erros», **Journal of Finance**, (2024) 79 (3), 2339-2390 (collaborative research with more than 300 authors)
2022 Christensen, K, Oomen, R. and Renò, R., «The drift burst hypothesis», **Journal of Econometrics**, (2022) 227 (2), 461-497.
2022 Bandi, F. and Renò, R., «β in the tails», **Journal of Econometrics**, (2022) 227 (1), 134-150.
2020 Bandi, F., Kolokolov, A., Pirino, D. and Renò, R., «Zeros»,

Management Science, (2020) 66 (8), 3466-3479.

2018 Bandi, F. and Renò, R., «Nonparametric Stochastic Volatility», **Econometric Theory**, 34 (6), 1207-1255.

2018 Pacati, C., Pompa, G., and Renò, R., «Smiling Twice: the Heston++ model», **Journal of Banking and Finance**, 96, 185-206.

2018 Oliva, I., and Renò, R., «Optimal Portfolio Allocation with Volatility and Co-jump Risk that Markowitz would like», **Journal of Economic Dynamics and Control**, 94, 242-256.

2018 Kolokolov, A. and Renò, R., «Efficient Multipowers», **Journal of Financial Econometrics**, 16 (4), 629-659.

2017 Bandi, F., Pirino, D. and Renò, R., «EXcess Idle Time», **Econometrica**, 85(6), 1793-1846.

2017 Caporin, M., and Kolokolov, A. and Renò, R., «Systemic Co-jumps», **Journal of Financial Economics**, 126(3), 563-591.

2016 Bandi, F. and Renò, R., «Price and volatility co-jumps», **Journal of Financial Economics**, 119 (1), 107-146

2015 Mancini, C., Mattiussi, V., and Renò, R., "Spot volatility estimation with delta sequences", **Finance & Stochastics**, 19(2), 261-293.

2014 Pacati, C., Renò, R. and Santilli, M., "Heston model: shifting on the volatility surface", **Risk**, November, 54-59

2012 Bandi, F. and Renò, R., "Time-varying leverage effects", **Journal of Econometrics**, 161, 94-113.

2012 Corsi, F. and Renò, R., "Discrete-time volatility forecasting with persistent leverage effect and the link with continuous-time volatility modeling", **Journal of Business and Economic Statistics**, 30(3), 368-380.

2011 Mancini, C. and Renò, R., "Threshold estimation of jump-diffusion models and interest rate modeling", **Journal of Econometrics**, 160, 77-92.

2010 Corsi, F., Pirino, D. and Renò, R., "Threshold bipower variation and the impact of jumps on volatility forecasting", **Journal of Econometrics**, 159, 276-288.

2009 Bianco, S., Corsi, F. and Renò, R., "Intraday LeBaron effects", **Proceedings of the National Academy of Science of the USA**, 106: 11439-11443.

2008 Renò, R., "Nonparametric estimation of the diffusion coefficient of stochastic volatility models", **Econometric Theory**, 24(5), 1174-1206.

2003 Barucci, E., Malliavin, P., Mancino, M., Renò, R. and Thalmaier, A., "The price-volatility feedback rate: an implementable mathematical indicator of market stability", **Mathematical Finance**, 13: 17-35. 371-378.

Bibliometria

Citazioni: 1581 (Scopus), 1390 (Scopus excluding co-authors), 3465 (Google Scholar); h-index: 20 (Scopus), 17 (Scopus excluding co-authors), 28 (Google Scholar), rilevato il: 22 marzo 2024.

Periodi all'estero

2024 Visiting Professor, Macquarie Business School (Australia).

2023 Visiting Professor, Lancaster University (UK).

2022-2023 Visiting Professor, Aarhus BSS (Denmark).

2022 Visiting Professor, ESSEC Business School, Cergy (France).

2021 Visiting Scholar, CREST, Palaiseau (France).

2018 Visiting Professor, Carey Business School, Johns Hopkins University, US;

2017 Visiting Professor, Carey Business School, Johns Hopkins University, US;

2015 Visiting Scholar, CREATES, Aarhus (DK);

2015 Visiting Scholar, Carey Business School, Johns Hopkins University, US;

2013 Visiting Scholar, Carey Business School, Johns Hopkins University, US;

2013 Fernand Braudel Fellow, European University Institute, Florence (Italy);

2013 Visiting Scholar, IMT Lucca (Italy)

2011 Visiting Professor, Carey Business School, Johns Hopkins University, US;

2010 Visiting Professor, Carey Business School, Johns Hopkins University, US;

2009 Visiting Scholar, Department of Finance, Università della Svizzera Italiana, Lugano (Switzerland)

2005 Visiting Scholar, City University, London (UK);

2004 Socrates Short Term Mobility, University of Valladolid (Spain).

Seminari a invito

CERN, Geneve (1997, 1998), Scuola Normale Superiore, Pisa (2000, 2001, 2003, 2010, 2012); Università di Torino (2001); Università di Palermo (2002), Università di Perugia (2002, 2009); CIDE, Bologna (2002); IAC, CNR, Roma (2002), Giardino Giusti, Università di Verona (2002, 2008), Università di Camerino (2004), Universidad de Valladolid (2004), Università di Palermo (2005), Birckbeck College, London (2005), Università di Padova (2006, 2013), Università di Firenze (2006, 2009, 2011, 2012), Università di Milano-Bicocca (2007), University of North Texas (2007), Università della Svizzera Italiana, Lugano (2007, 2009), Università di Modena-Reggio Emilia (2008), Universitè de Nice (2009), Università Statale di Milano (2009), EIEF, Roma (2009), Università di Siena (2010, 2011, 2015), Università di Parma (2010), Politecnico di Milano (2010), Universidad Carlos III, Madrid (2010), Carey Business School, Johns Hopkins University, Baltimore (2010), Federal Reserve Board, Washington DC (2010, 2018), ECARES, Bruxelles (2012), IMT, Lucca (2012), Università di Roma Tor Vergata (2013), CONSOB, Roma (2013), CREATES, Aarhus (2014), Università di Chieti-Pescara (2015), University of Maastricht (2015, 2018), Università «Ca' Foscari», Venezia (2016), Unicredit, Milano (2016), Dublin City University (2016), FAM, Technical University of Vienna (2016), University of Toulouse (2016), Duke University (2017), Commodity Trading and Future Commission, Washington DC (2017), University of Groningen (2017), Università di Trento (2018), Università di Bolzano (2018), Università di Bolzano (2018), Pontifical Catholic University, Rio de Janeiro (2019), Banca d'Italia (2019), Collegio Carlo Alberto, Turin (2020), Warwick Business School (2021), CREST, Paris (2021), European Securities and Markets

Authority, Paris (2021), BI Norwegian Business School, Oslo (2022), ESSEC, Cergy (2022), University of Geneve (2022), CEBA Talk (2022), University of Urbino (2023), University of Lancaster (2023), LUISS, Rome (2023), Erasmus University in Rotterdam (2023), SKEMA Business School, Paris (2024), HEC Montréal (2024), Macquarie Business School (2024), Università di Genova (2025), Università di Pavia (2025).

Principali conferenze

2025 «0DTE Option Pricing», *AMFMath 2025*, Bruxelles.
2024 «Taking advantage of biased proxies for forecast evaluation», *Time Series and Forecasting Symposium (TSF 2024)*, Sydney.
2024 «0DTE Option Pricing», *Financial Econometrics Conference*, Cambridge, UK.
2024 «Taking advantage of biased proxies for forecast evaluation», *Toulouse Financial Econometrics Conference*, France.
2024 «0DTE Option Pricing», *MAF2024*, Le Havre, France.
2024 «How to detect trend in high frequency data», *Machine Learning and High-Dimensional Analysis workshop*, LAMBDA research cluster, University of Liverpool
2023 «How to detect trend in high frequency data», *OMI Machine Learning in Financial Econometrics*, The Oxford Man Institute, Oxford,UK
2023 «Realized drift», *Volatility Conference*, Singapore.
2023 «BUMVU Estimators», *Workshop in Financial Econometrics*, Barcelona, Spain.
2023 «BUMVU Estimators», *Bolzano-Waseda Workshop on Statistics & Time Series analysis*, Selva di Val Gardena, Italy.
2023 «Discontinuous trading in continuous time econometrics», *SH3 Conference in Econometrics* , Singapore.
2022 «Nonparametric stochastic volatility», *5th Asset Pricing Conference by LTI@UniTo*, Torino, Italy.
2022 «Realized Drift», *Volatility, Jumps and Bursts Workshop*, Lancaster, UK.
2022 «Realized Drift», *QFFE 2022*, Marseille, France.
2022 «Random Sampling at High Frequency», *Conference on Intrinsic Time in Finance*, Allensbach, Germany.
2022 «Zeros», *DAGSTAT 2022*, Hamburg, Germany.
2020 «Structural Stochastic Volatility», *Virtual QRFE Workshop on Financial Econometrics*, Durham Business School, UK.
2019 «Beta in the tails», *Fourth International Workshop in Financial Econometrics*, Maceiò, Brazil.
2019 «Flash Crashes», *5th QFRA Symposium*, Kos, Greece.
2019 «Flash Crashes», *QFFE 2019*, Marseille, France.
2018 «Jumps or Flatness?», *11th Annual SoFiE conference*, Lugano.
2017 «Systematic Flatness», *Vienna-Copenaghen Conference*, Vienna.
2016 «The Drift Burst Hypothesis», XVII Workshop on Quantitative Finance, Scuola Normale Superiore, Pisa, Italy
2016 «The Drift Burst Hypothesis», (invited speaker) *3rd Workshop on Empirical Finance*, ESSEC, Paris, France
2016 «The Drift Burst Hypothesis», (invited speaker) *2nd SAFE Workshop on Market Microstructure*, Frankfurt, Germany
2016 «The Drift Burst Hypothesis», *9th Annual SoFiE conference*, Hong Kong.
2015 ”Multi-jumps”, (invited speaker), GSE Summer Forum, Barcelona, Spain
2015 ”Multi-jumps”, 11^{th} *World Congress of the Econometric Society*, Montreal, Canada
2015 «EXcess Idle Time», *Econometric Society Winter Meeting*, Milano, Italy
2014 ”Multi-jumps”, 7^{th} *Financial Risk International Forum*, Paris, France
2013 «Price and volatility co-jumps» (invited speaker), *International Conference on «Systemic Risk, Contagion and Jumps»*, CASS Business School, London, UK.
2013 «EXcess Idle Time», *the Fifth Florence-Ritsumeikan Workshop on Stochastic Processes and Applications to Finance and Risk Management*, Firenze, Italy.
2013 «EXcess Idle Time», *Measuring and Modeling Financial Risk with High Frequency Data*, Firenze, Italy.
2013 «EXcess Idle Time», *Statistical Modeling, Financial Data Analysis and Applications*, Venezia Italy.
2010 “Nonparametric leverage effects” (invited speaker), *Workshop on Financial Econometrics at the Fields Institute*, Toronto, Canada.
2010 “Discrete-time volatility forecasting with persistent leverage effect and the link with continuous-time volatility modeling”, *SoFiE CREATES*, Aahrus, Denmark.
2009 “Nonparametric leverage effects” (poster), *II SoFiE*, Geneve, Switzerland.
2008 “Nonparametric stochastic volatility” (poster), *I SoFiE*, New York, US.
2008 “Volatility forecasting: the jumps do matter”, *V Bachelier World Congress*, London.
2008 “Nonparametric stochastic volatility”, *BAS 2008*, Barcelona, Spain.
2007 “Threshold estimation of jump diffusion models and interest rate modeling” *XV SNDE Congress*, Paris, France
2007 “Disentangling jumps from diffusion in equity and electricity markets” (invited speaker), *Conference on Volatility and High Frequency Data*, Chicago, US.
2007 “Volatility of financial data” (invited speaker), *Physics Colloquium*, University of North Texas, Denton, US.
2006 “Threshold estimation of jump diffusion models and interest rate modeling”, *CIREQ Conference on Realized Volatility*, Montreal, Canada (2006).
2006 “Threshold estimation of jump diffusion models and interest rate modeling” *IV Bachelier World Congress*, Tokio, Japan.
2005 “Nonparametric Stochastic Volatility Modeling”, *XIII SNDE Congress*, London.
2004 “On measuring correlation of financial time series with high-frequency data”, *II WCDM04*, Torino, Italy.
2004 “Nonparametric estimation of the diffusion coefficient”, *III Bachelier World Congress*, Chicago, U.S.
2001 “On measuring volatility and the GARCH forecasting performance”, *Market Microstructure and High Frequency data in Finance*, Sandbjerg, Denmark.
2000 “Volatility estimate via Fourier analysis” (poster), *Bachelier World Congress*, Paris.

Studenti di dottorato

- Dr Antonio Mannolini, *Essays on Derivatives Pricing with the Extended CIR model*, PhD in Economics, University of Siena, 2007.
- Dr Davide Pirino, *Theoretical and Empirical Essays on the Dynamics of Financial and Energy Markets*, PhD in Physics, University of Pisa, 2009
- Dr Sandrine Jacob Leal, *Three essays on agents' heterogenity in financial markets*, PhD in Economics, University of Siena, 2010
- Dr Mario Dell'Era, *Geometrical Approximation and Perturbative Methods for PDEs in Finance*, PhD in Mathematics for Economic Decisions, Università di Pisa, 2011.
- Dr Aleksey Kolokolov, *Advancements in financial econometrics of detecting simultaneous jumps, measuring integrated volatility powers and covariation*, PhD in Econometrics and Empirical Economics, University of Roma Tor Vergata, 2013.
- Dr Manola Santilli, *New Tools for Volatility Models*, PhD in Economic Statistics, University of Roma La Sapienza, 2014.
- Dr Gabriele Pompa, *Deterministic Shift Extension of Affine Models for Variance Derivatives*, PhD in Management Science, IMT Lucca, 2016

Finanziamenti

Come Investigatore Principale:

2016 Bando per la Ricerca di Base, Università di Verona. Titolo del progetto: *High Frequency Liquidity*. Finanziamento: **20,000€**.

2013 Europlace Institute of Finance, Louis Bachelier Grant. Titolo del progetto: *A New Measure of Liquidity in Financial Markets*. Finanziamento: **10,000€**.

2002 Giovani Ricercatori, University of Siena.

Come partecipante:

2015 SIR, MIUR. Titolo del progetto: *A New Measure of Liquidity*. Principal Investigator: Davide Pirino. Finanziamento: **303,000€**.

2014 University of Padova Research Projects, CPDA143827. Principal Investigator: Massimiliano Caporin. Titolo del progetto: *Multi-jumps in financial asset prices: detection of systemic events, relation with news, and implications for pricing*. Finanziamento: **44,950€**.

2014 Giovani Ricercatori, Scuola Normale Superiore. Principal Investigator: Davide Pirino. Titolo del progetto: *Commonality in Liquidity and Systemic Risk*. Finanziamento: **9,500€**.

2009 Education and Science Council, Castilla and León Autonomous Government, Spain. Research project VA016A10-1. Principal Investigator: Pedro Gutierrez. Finanziamento: **17,415€**.

2006 PAR Progetti, University of Siena. Principal Investigator: Giampaolo Gabbi. Titolo del progetto: *Volatility and derivatives in electricity and weather markets*. Finanziamento: **13,720€**.

2004 PAR Progetti, University of Siena. Principal Investigator: Marcello Basili. Number of partecipants: 3. Titolo del progetto: *Asset pricing and non-Bayesian behavior*. Finanziamento: **18,800€**.

2003 PRIN, MIUR. Principal Investigator: Massimo De Felice. Titolo del progetto: *Finance of revaluable life insurance*. Finanziamento: **95,000€**.

2002 PAR Progetti, University of Siena. Principal Investigator: Marcello Basili. Titolo del progetto: *Real Options: Theory and Applications*. Finanziamento: **23,200€**.

Attività varie

- **Attività editoriale**: Associate Editor di *Economic Notes*, 2012-; *Journal of Applied Mathematics*, 2013-2016; *Economics, 2013-present*; *e-Conomica*, 2013-present; *Anales de Estudios Economicos y Empresariales*, 2008-2012, *Journal of Mathematics*, 2012-2013. Co-Editor, con Cecilia Mancini, dello Special Issue di Economic Notes *Research Week on Financial Mathematics and Econometrics*, Volume 39 (2010)
- **Referee per le riviste**: Journal of Econometrics, Journal of Financial Economics, Journal of the American Statistical Association, Econometric Theory, Journal of Business and Economic Statistics, Journal of Applied Econometrics, Journal of Banking and Finance, Journal of Financial Econometrics, Journal of the Royal Statistical Society Series B, Annals of Applied Statistics, Mathematical Finance, Econometric Reviews, Energy Economics, Journal of Forecasting, Scandinavian Journal of Statistics, Quantitative Finance, Journal of Empirical Finance, Computational Statistics and Data Analysis, Statistics and Probability Letters, Journal of International Financial Markets Institutions and Money, Quarterly Review of Economics and Finance, Studies in Nonlinear Dynamics and Econometrics, Journal of Computational and Applied Mathematics, Economic Modelling, European Journal of Operational Research, Economic Notes, Computational Economics, Journal of Statistical Planning and Inference, Applied Stochastic Models in Business and Industry, Decisions in Economics and Finance, Communications in Statistics - Theory and Methods, Communications in Statistics - Simulation and Computation, International Journal of Theoretical and Applied Finance, Journal of Economics and Business, International Journal of Control, Fluctuations and Noise Letters, Physica A, Revue Finance, Decision Support Systems, Central European Journal of Operations Research, Statistical Papers, IMA Journal of Management Mathematics, International Journal of Financial Engineering and Risk Management.
- **Valutazioni di progetti di ricerca:** Futuro in Ricerca, MIUR, Italy (2013); Valutazione Quadriennale della Ricerca (VQR), ANVUR, Italy (2013, 2016); Chargé de recherches, FNRS, Belgium (2013, 2014, 2015, 2017); BiR&D Multidisciplinary Award, FNRS/FWO, Belgium (2015); Grants and Fellowships, FNRS, Belgium (2016, 2017, 2018), SSHRC Insight Grants, Canada (2016),

Resarch Projects, FWO, Belgium (2016); Università di Bolzano (2018); Swiss National Science Foundation (2018); Research Grants Council, Hong Kong (2019).

- **Commissioni Finali di Dottorato**: Dr. Chiara Maria Ruffo, PhD in Statistics and Mathematical Finance, Università di Milano-Bicocca (2018); Dr. Marco Ticciati, PhD in Economics, Università di Siena (2018); Dr. Francesca Lilla, PhD in Economics, Università di Bologna (2017); Dr. Igor Vexin, PhD in Economics, S.Anna, Pisa (2017); Dr. Patrick Zoi, PhD in Economics, Università di Venezia (2017); Dr. Mikkel Bennedsen, PhD in Economics, University of Aarhus (2017); Dr. Mehdi Lallouache, PhD in Applied Mathematics, Ecole Centrale Supelec (2015), Dr. Mauro Iannace, PhD in Statistics and Applications, University of Milano-Bicocca (2014); Dr. Marco Savioli, PhD in Economics, University of Siena (2014); Dr. Enrico Edoli, PhD in Mathematics, University of Padova (2013); Dr. Janine Balter, PhD in Finance, University of Saarbrucken (2012); Dr. Marcello Mezzedimi, Phd in Metodi Matematici per l'Economia, l'Azienda, la Finanza e le Assicurazioni, LUISS (2012); Dr Dimitrios Karyampas, PhD in Finance, Birkbeck College London (2010); Dr Antonio Risso, PhD in Economics, University of Siena (2009); Dr Mirko Stefano Mega, PhD in Mathematics for Economics, LUISS and Université Paris 13 (2009); Dr. Sebastiano Silla, PhD in Mathematics for Economics, University of Pisa (2008).
- **Commissioni per procedure comparative:** AdR, Università di Siena, 2014 (vincitori: Mattia Fochesato and Alesia Kalbaska); RTDA Università di Perugia, 2015 (vincitore: Davide Pirino); AdR, Università di Verona, 2016 (vincitori: Claudia Meroni and Maddalena Cavicchioli); Professore Associato, Università di Siena, 2016. (vincitore: Salvatore Federico); RTDB, Università di Verona, 2016 (vincitore: Luca Taschini); Professore Ordinario, Università di Lecce, 2016 (vincitore: Fabrizio Durante); AdR, Scuola Normale Superiore, Pisa, 2017 (vincitori: Giuseppe Buccheri and Alessandro Pollastri); RTDA, Università di Verona, 2017 (vincitore: Athena Picarelli); Professore Associato, Università di Verona (vincitore: Alessandro Gnoatto).

Insegnamento

* in inglese.

Lauree magistrali, o livelli equivalenti:

- Advanced Hedge Fund Strategies*, Carey Business School, Johns Hopkins University, 2017 (48 hrs), 2018 (24 hrs)
- Financial Modeling and Valuation*, Carey Business School, Johns Hopkins University, 2018 (72 hrs)
- Corporate Finance*, Carey Business School, Johns Hopkins University, 2009 (24 hrs), 2017 (48 hrs)
- Statistical Analysis*, Carey Business School, Johns Hopkins University, 2009 (24 hrs)
- Derivatives*, Carey Business School, Johns Hopkins University, 2009 (24 hrs), 2010 (72 hrs)
- Derivati, Università di Verona, 2015-16 (54 hrs), 2016-17 (54 hrs), 2017-18 (54 hrs), 2018-19 (54 hrs)
- Financial Risk Management, Università di Verona, 2015-16 (54 hrs)
- Financial Modeling II*, Università di Siena, 2010-11 (60 hrs), 2011-12 (60 hrs), 2012-13 (60 hrs), 2013-14 (60 hrs), 2014-15 (60 hrs).
- Credit risk modeling*, Università di Roma Tor Vergata, 2012-13 (36 hrs), 2013-14 (18 hrs), 2014-15 (18 hrs).
- Processi Stocastici per la Finanza, Università di Siena, 2004-05 (25 hrs), 2005-06 (25 hrs), 2006-07 (25 hrs), 2007-08 (25 hrs), 2008-09 (25-hrs)
- Modelli Matematici per le Applicazioni Finanziarie, Università di Siena, 2005-06 (25 hrs), 2006-07 (25 hrs), 2007-08 (25 hrs), 2008-09 (25 hrs).
- Processi Stocastici e Applicazioni Finanziarie, LUISS Guido Carli, 2008-09 (72 hrs), 2010-11 (72 hrs)

Lauree triennali, o livelli equivalenti:

- Matematica Finanziaria, Università di Verona, 2016-17 (72 hrs), 2017-18 (72 hrs), 2018-19 (72 hrs)
- Matematica Finanziaria, Università di Siena, 2001-02 (50 hrs), 2002-03 (50 hrs), 2003-04 (75 hrs), 2004-05 (50 hrs), 2005-06 (50 hrs), 2006-07 (50 hrs), 2007-08 (50 hrs), 2008-09 (50 hrs), 2010-11 (60 hrs), 2011-12 (60 hrs), 2012-13 (60 hrs), 2013-14 (60 hrs), 2014-15 (60 hrs).
- International Finance*, USAC, 2019 (18 hrs)
- Mathematical Finance*, LUISS Guido Carli, 2012-13 (72 hrs), 2013-14 (72 hrs)
- Corporate Finance*, LUISS Guido Carli, 2015-16 (72 hrs)
- Modelli dei Mercati Finanziari, Università di Siena, 2011-12 (10 hrs)
- Matematica Generale, Università di Siena, 2001-02 (20 hrs), 2002-03 (30 hrs)

Dottorato:

- Finance*, Phd in Economics, Università di Verona, 2017 (10 hrs), 2018 (10 hrs)
- Finance*, Phd in Economics, Università di Siena, 2003 (10 hrs), 2004 (10 hrs), 2005 (10 hrs), 2006 (10 hrs), 2007 (20 hrs), 2008 (20 hrs), 2009 (20 hrs), 2011 (20 hrs), 2012 (30 hrs), 2013 (10 hrs), 2014 (10 hrs), 2015 (10 hrs)
- Financial Econometrics*, PhD in Econometrics and Empirical Economics, PhD in Money and Finance, Università di Roma "Tor Vergata", 2011 (12 hrs), 2012 (12 hrs)
- Quantitative Finance*, PhD in Economics, Markets and Institutions, IMT, Lucca, 2013 (20 hrs), 2014 (20 hrs), 2015 (20 hrs)

Master:

- JRC course in Mathematical Finance*, European Community, 2007 (16 hrs)
- Professional course *Gestione degli strumenti finanziari*, Société Générale, Milano, Italy, 2012 (24 hrs)
- Professional course *Swaptions*, Société Générale, Milano, Italy, 2013 (16 hrs)
- Master *MEBS*, Università di Siena, 2001-02 (8 hrs), 2002-03 (12 hrs), 1003-04 (16 hrs), 2004-05 (12 hrs), 2006-07 (12 hrs), 2008-09 (12 hrs), 2011 (12 hrs).
- Master *E2C*, Università di Siena, 2002-03 (10 hrs), 2003-04 (10 hrs).
- Master *Finanza per la banca e per l'assicurazione*, Università "La Sapienza" di Roma, 2003-04 (16 hrs), 2004-05 (12 hrs), 2005-06 (12 hrs).
- Master *Sistemi Complessi*, Università di Palermo, 2002-03 (15 hrs)
- Master *Energy Risk Management*, Università di of Milano-Bicocca 2006-07 (12 hrs), 2007-08 (12 hrs)
- Master *Finanza Quantitativa*, Università di Macerata, 2007-08 (12 hrs)
- Master *Finanza d'Impresa*, Camporlecchio Educational SRL, 2006 (12 hrs)