

# Cecilia Mancini

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Nationality: Italian



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## ACADEMIC POSITIONS

- 2019- **Full Professor**, Department of Scienze per l'Economia, University of Verona, Italy  
2011-2019 **Associate Professor**, Department of Scienze per l'Economia e l'Impresa (DISEI), University of Florence, Italy  
2005-2010 **Adjunct Professor**, for teaching a course of Metodi matematici in Prato, University of Florence (the title exists since 2005, the teaching was done since 2000)  
1997-2011 **Assistant Professor**, Department of Matematica per le Decisioni, University of Florence, Italy

## EDUCATION

- 1999 **PhD** in Mathematics, Department of Mathematics, University of **Roma Tor Vergata**, Italy, *A jump-diffusion version of the CIR bivariate model*  
1995 **Master**: Diplome d'Etudes Approfondies de Probabilites et Applications, Laboratoire de Probabilites et Modèles Aléatoires, University of **Paris 6**, France  
1995 **Research stage** (from April to July) at the University of **Perugia**, Istituto di Matematica generale e finanziaria, subject "*The trivariate CIR model: pricing and estimation of the parameters*" director of the research Prof. F. Moriconi  
1993 **Degree** in Mathematics from the University of **Pisa** (4 years course), 110/110 magna cum laude. Thesis "*No arbitrage financial market models: existence of an equivalent martingale measure*", advisor Maurizio Pratelli

## PUBLICATIONS

- 2019 J. E. Figueroa-Lopez, C. Mancini, *Optimum thresholding using mean and conditional mean squared error*, forthcoming on **Journal of Econometrics**, 208(1), pp. 179-210  
2018 C. Mancini, *Non-parametric threshold estimation for models with stochastic diffusion coefficient and jumps*, in the book **Volatility**, The International Library of Critical Writings in Economics series, Edward Elgar publishing, vol. II, n. 24, Eds: T.G.Andersen e T.Bollerslev, ISBN: 978 1 78811 061 7  
2017 C. Mancini, *Truncated Realized Covariance when prices have infinite variation jumps*, **Stochastic Processes and their Applications** 127, 1998–2035  
2015 C.Mancini, V.Mattiussi, R.Renò, *Spot Volatility Estimation Using Delta Sequences*, **Finance and Stochastics**, 19(2), 261-293  
2013 C. Mancini *Measuring the relevance of the microstructure noise in observed financial data*, **Stochastic Processes and their Applications** 123, 2728–2751  
2012 C. Mancini, F. Gobbi, *Identifying the Brownian covariation from the co-jumps given discrete observations*, **Econometric Theory**, 28 (2), pp. 249-273  
2012 Mancini, C., Calvori, F., *Jumps*, chapter of the **Wiley Handbook** in Financial Engineering and Econometrics: Volatility Models and Their Applications, Editors: Luc Bauwens, Christian Hafner and Sébastien Laurent, ISBN: 978-0-470-87251-2  
2011 C.Mancini, *The speed of convergence of the threshold estimator of integrated variance*. **Stochastic processes and their applications**, 121(4), 845-855  
2011 R. Cont, C. Mancini, *Nonparametric tests for pathwise properties of semimartingales*, **Bernoulli**, 17(2), 781–813  
2011 C. Mancini, R. Renò, *Threshold estimation of Markov models with jumps and interest rate modeling*, **Journal of Econometrics**, 160 (1), 77-92  
2009 C. Mancini, *Non-parametric threshold estimation for models with stochastic diffusion coefficient and jumps*, **Scandinavian Journal of Statistics**, 36, 270-296

- 2008 C. Mancini, *Large deviation principle for an estimator of the diffusion coefficient in a jump diffusion process*, **Statistics and Probability Letters**, 78, 869-879
- 2007 F.Gobbi, C.Mancini, *Estimating the diffusion part of the covariation between two volatility models with jumps of Lévy type*. In: of **Series on advances in mathematics for applied sciences**, Applied and Industrial Mathematics in Italy II, vol. 75, **Selected contributions SIMAI Conference**, 22 – 26 May 2006, ed.s V.Cutello, G.Fotia, L.Puccio, World Scientific, pp. 399-409. ISBN: 978-981-270-938-7
- 2004 C. Mancini, *Estimation of the characteristics of the jumps of a general Poisson-diffusion model*, **Scandinavian Actuarial Journal**, 1, 42-52. ISSN 0346-1238
- 2003 C. Mancini, *Uniqueness of the solution to a difference-partial differential equation for finance*, **Mathematical Models & Methods in Applied Sciences**, vol. 13 (7), 919-943, ISSN: 0218-202
- 2003 C. Mancini, **Metodi matematici per le decisioni aziendali**, Pitagora Editrice Bologna, ISBN 88-371-1415-X
- 2002 C. Mancini, *The European options hedge perfectly in a Poisson-Gaussian stock market model*, **Applied Mathematical Finance** 9, 87-102, ISSN 1350-486X
- 2001 C. Mancini, *Disentangling the jumps of the diffusion in a geometric jumping Brownian motion*, **Giornale dell'Istituto Italiano degli Attuari**, volume LXIV, Roma, 19-47, ISSN: 0390-5780
- 1998 C. Mancini (1998), *Completing a jump-diffusion version of the bivariate Cox-Ingersoll-Ross model*, **Proceedings XXII conference AMASES society**, Genova, 9-12 Sept., Bozzi Edt. **AMASES prize 1998**

### Minor

- 2000 C. Mancini, *Modello bivariato di Cox-Ingersoll-Ross guidato da diffusioni e salti: valutazione, completamento, stimatori dei parametri*, **Bollettino U.M.I.**, Serie VIII, Vol. III-A, PhD thesis issue, 121-124, published in Bologna
- 2010 R. Renò, C. Mancini, *Introduction to the Special Issue: Financial Mathematics and Econometrics*, Special Issue for the research week on Financial Mathematics and Econometrics, Florence, September 9–11, 2009, **Economic Notes** by Banca Monte dei Paschi di Siena SpA, Volume 39, n.1/2, ISSN 0391-5026
- 2007 F. Gobbi, C. Mancini (2007): *Diffusion covariation and co-jumps in bidimensional asset price processes with stochastic volatility and infinite activity Lévy jumps*, <http://arxiv.org/pdf/0705.1268.pdf>
- 2003 C. Mancini, *Statistics of a Poisson-Gaussian process*, **Quaderni** of the Department DiMaD, Firenze, n.7
- 2003 C. MANCINI. Statistics of a Poisson-Diffusion process. Abstract in: **Proceedings AMASES conference 2003**. p. 302-303, AMASES, Cagliari, 3-6 Sett.
- 2002 C. Mancini, *Are the Brownian motion and the Poisson process independent?* **Quaderni** of the Department DiMaD n.10
- 2001 C. MANCINI. Estimation of the parameters of jump of a general Poisson-diffusion model. Abstract in: **Proceedings AMASES conference** p. 281-284, Firenze, 5-8 Sett.
- 1999 C. Mancini, *A jump-diffusion version of the CIR bivariate model*, **tesi di dottorato**, discussa ad aprile, Roma Tor Vergata
- 1998 C. Mancini, *Estimators for the parameters of a jump-diffusion process*, Abstract in **Proceedings IV conference SIMAI**, Messina, June
- 1996 C. Mancini, *Modello per un mercato finanziario esente da arbitraggio: esistenza di una legge equivalente che rende il processo stocastico dei prezzi una martingala*, **tesi di laurea, premio Bruno De Finetti**, pubblicazione in proprio, Pisa, 20/1/1996
- 1995 C. Mancini, *Il modello CIR trivariato*, **rapporto di stage** del DEA, Università Parigi 6

### Working papers

- 2019 F.Lilla, R.Foschi, C.Mancini: *Warnings about future jumps: properties of the exponential Hawkes model*, **working paper**
- 2019 J. Figueroa-Lopez, C. Mancini: *Optimum conditional mean error for the square Truncated Realized Variance with infinite activity jumps*, **working paper**
- 2019 C. Mancini, L. Torricelli: *Target volatility strategies in semimartingale models*, **working paper**

### GRANTS (principal investigator)

- 2018 3'000 Eu from **GNAMPA** (Gruppo Nazionale per l'Analisi Matematica, la Probabilità e le Applicazioni), one-year research project, *Nuovi indicatori di instabilità dei mercati finanziari*
- 2017 2'000 Eu grant from **INdAM** (Istituto Nazionale di Alta Matematica, Roma) to invite Sveinn Olafsson to visit DISEI (transformed then in 1500 Eu to invite José Figueroa-Lopez)

2016 3'000 Eu grant from **University of Florence** to invite Imma Curato from Ulm University  
2016 600 Eu from **INdAM** to invite Jose Figueroa-Lopez to visit DISEI 10 days in 2016  
2015 32'000 Eu grant from **University of Florence** for the strategic project *Previsori di instabilità dei mercati finanziari*  
2014 600 Eu grant from **INdAM** to invite Mark Podolskij to visit DISEI for 1 week in 2014  
2013 10'000 Eu grant from **Europlace Institute of Finance Louis Bachelier** (EIF) for the research project *Small Jumps and Default Contagion*  
2013 1'400 Eu grant from **University of Florence** to invite Peter Tankov at DISEI  
2012 grants from **INdAM** and from the **Faculty** of Economics of the University of Florence to organize at DISEI the *Fifth Florence Ritsumeikan workshop* in March 2013  
2010 3'000 Eu grant from **Fondazione Cassa di Risparmio di Firenze**, and further grant from **Faculty** of Economics of Florence U. to organize two 2011 workshops  
2010 grants from **INdAM** to organize one of the two workshops in March 2011  
2009 2'000 Eu grants from **Monte dei Paschi di Siena**, further grants from **Florence U.** and **INdAM** to organize the research week with Jean Jacod and Nour Meddahi  
2007 grant from the **University of Florence** to invite Jean Jacod as visiting in March  
2005 grant from the **University of Florence** to invite Rama Cont as visiting in October  
2010-2019 each year research grant of on average 2400 Eu received (for merit) from **Florence U.**  
2002 grant of 2'000 Eu from the **University of Florence** for a project of a young researcher  
2001 grant of 2'000 Eu from the **University of Florence** for a project of a young researcher  
1998 scholarship **form Roma Tor Vergata** U. for a research stay 3 months abroad  
1994 Mino Bontempelli 1 year scholarship from **Accademia Nazionale dei Lincei**

## HONORS & AWARDS

2005 500 Eu **Award** from the **Econometric Society** for the presentation of at the 2005 world conference of the Econometric Society  
1998 **AMASES prize** for the presentation of a paper by a young researcher at single name at the XXII AMASES congress, Genova, September  
1997 Laurea degree **Bruno De Finetti prize**, form Accademia Nazionale dei Lincei, Roma, June

## MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2016, 2018 Ordinary member, The Society of Financial Econometrics, **SoFiE**  
1996- member of **GNAMPA** (Gruppo Nazionale per l'Analisi Matematica, la Probabilità e le Applicazioni)

## EDITORIAL RESPONSIBILITY

2009-2010 **Guest co-Editor** of *Economic Notes*, 2010, Volume 39, Issue 1: Special Issue *Financial Mathematics and Econometrics*, dedicated to the publication of papers connected with the Research week *Stochastic processes and financial econometrics*, held in Florence, 9-11/9/2009

## REFeree ACTIVITIES

**For Reviews:** Stochastic Analysis and Applications; Review of derivatives research; Stochastic Processes and their Applications; The Open Statistics & Probability Journal; Economics Letters; Annals of Actuaries; Annals of Statistics; Bernoulli; Econometric Theory; ESAIM Probability and Statistics; Journal of Econometrics; Journal of Financial Econometrics; Review of economic studies; Finance & Stochastics; Econometrica; European Journal of Operational Research; Springer Proceedings of the conference Stochastic Finance in Lisbona

### For research project:

2015 for the Research Commission of the Italian Switzerland University

### For conferences:

2012-2016 programme committee member of the annual conference of the Society for Financial Econometrics (**SOFIE**): 2012, 2013, 2015, 2016, in 2012 I was also invited as **chairperson**  
2016 ICASQF (International Conference on Actuarial Science and Quantitative Finance)  
2014 scientific committee member of the XV workshop on Quantitative Finance, Florence  
2009, 2014 IRCM (International Risk Management Conference)

## For Phd, master thesis

2016, 2018 Florence U. (master theses): Giacomo Toscano, Lorenzo Nesi  
2011 Mario Dell'Era, Pisa Univ. (PhD thesis)  
2007 Alexander Alvarez Hernández, University Paul Sabatier, Tolouse III (PhD thesis)

## For books

2003 ch. 7 "Stochastic calculus for jump processes", of the book Financial modelling with jump processes, by Rama Cont and Peter Tankov  
2004 of the translation in Italian of the financial mathematics part of "Manuale di algebra e geometria" GIUNTI Edt.

## THESIS SUPERVISION

2006-2018 advisor of the **post doc students**: Francesca Lilla (2017), Rachele Foschi (2016), Fabio Gobbi (2006, 2007)  
2011-2013,2018 co-advisor of **PhD Thesis**: Francesco Calvori, Florence U.; Zokhir Kosymov, joint **PhD** programme of Coimbra U. and Minho U.  
2005-2006 advisor of the **PhD Thesis** of Fabio Gobbi, Florence U.  
2012, 2019 advisor of the **master degree thesis** of: Giulio Lorenzini (Physical and astrophysical sciences, 2012), Florence U.; Martina Bartoli (Accounting and freelance, 2019)

## SCIENTIFIC JURIES

2007, 2011 **PhD** jury member: Pisa Univ., candidate Mario Dell'Era, 2011; Toulouse III Univ. candidate Alexander Alvarez Hernández, 2007  
2006-2017 hiring of an **assistant professor** commission member: Firenze Univ. (2017), Roma Tor Vergata Univ. (2008), Milano Bicocca U (2006)  
2004-2018 hiring **post-doc** commission member, Firenze U: 2004, 2006, 2016, 2017, 2018  
2017 hiring **adjunct professor** commission member for the course *Matematica per le applicazioni economiche*

## RECENT VISITING ABROAD

2019 visiting Jose Figueroa-Lopez at the **Washington University in St. Louis**, 18 May-13 June  
2018 **Oxford, Mathematical Institute**, visiting Alvaro Cartea, 27/2-3/3  
2017 visiting Jose Figueroa-Lopez at the **Washington University in St. Louis**, 7-19 of May 2016  
visiting Raphael Douady, **University Paris Pantheon-Sorbonne**, april  
2015,2014 visiting Peter Tankov, **University Paris 7**, 22/3/15-3/4/15 and 30/3/14-12/4/14  
2013 visiting Takaki Hayashi, **Keio University, Yokohama**, 20/23 March  
2012 visiting Emmanuel Gobet, **Ecole Polytechnique** (funder), Palaiseau (**Paris**), 16-22/12  
2012 visiting Markus Reiss, **Humboldt University** (funder) in **Berlino**, 1-8/7  
2011 visiting Laboratoire de Probabilites, Univ. **Parigi 6**, 21-27-11  
2011 visiting Mark Podolskij, **Heidelberg University**, 11-15/4 (funded by the Heidelberg U.)  
2010 visiting Nakahiro Yoshida, **Tokyo University** (funder), Graduate School of Mathematical Sciences, 6-20 March  
2010 visiting Jean Jacod and Rama Cont, University **Paris 6**, 13-20/1 (co-funded by InDaM)  
2009 visiting Shigeyoshi Ogawa, **Ritsumeikan University** (funder), Kyoto, 14-28/2

## TALKS

### Recently invited seminars

9/5/2019 Department of Economics and Finance, **Luiss Guido Carli, Roma**  
4/5/2018 **Berlin, Humboldt University**  
3/5/2018 Otto-von-Guericke Universität, **Magdeburgo** (Germania)  
1/3/2018 Mathematical Institute, **Oxford University**  
10/5/2017 **Washington Univ.** in St. Louis  
6/4/2016 Univ. **Paris Pantheon-Sorbonne**  
2/4/2015 Univ. **Paris 7**  
2/3/2015 Econometrics Seminar at **CORE**, Université Catholique de Louvain  
24/11/2014 Univ. **Pisa**, Department of Economics and management  
12/11/2014 **Purdue University**  
17/12/2012 **Ecole Polytechnique** Palaiseau (**Paris**)  
25/10/2012 **Luiss Guido Carli, Roma**

4/7/2012 **Humboldt University, Berlin**  
7/5/2012 **Scuola Normale Superiore di Pisa**  
24/11/2011 Laboratoire de Probabilites, Univ. **Paris 6**  
11/4/2011 Faculty of mathematics and information technology of **Heidelberg** University  
16-6-2010 Univ. **Perugia**, Dept. di Economia, Finanza e Statistica (funder of the mission)  
15-3-2010 University of **Tokyo**, Graduate School of Mathematical Sciences  
25/2/2010 Università di **Parma**, Dept. of Economics, Mathematics section E. Levi  
8/2/2010 Università di **Bologna**, Dept. of Mathematics  
7/2009 Institute of Number Theory and Probability Theory, **Ulm** University, Germany

## Recently invited talks at conferences

4-7/6/2019 **SIAM** conference on Financial mathematics and engineering, parallel session, **Toronto**  
29/9/2017 I Gransasso Workshop on Mathematical Finance, 27/29-9-2017, **L'Aquila**  
9/3/2017 Vienna–Copenhagen Conference on Financial Econometrics, **Vienna**, I also was **Chairperson**  
30/9/2016 **Siena** Finance Workshop, and discussant of the paper by M.W.D.Kurtz  
12-13/6/2016 *Financial Engineering and Risk Management International Symposium*, **Guangzhou**  
2-5/2/1016 Conference Frontiers in Stochastic Modelling for Finance, **Padova and Venezia**  
22-23/5/2015 discussant to the paper presented by Jia Li at the Financial Econometrics Conference, **Toulouse**: declined for superposing duties  
12-13/12/2014 conference on Realized volatility, **Montreal**: declined for teaching duties  
20-21/11/2014 workshop on statistics of high-frequency data, **Humboldt University, Berlin**: declined for teaching duties  
13-15/11/2014 **SIAM** conference, in a contributed session, **Chicago**  
22-25/9/2014 workshop on Statistical Inference for Lévy Processes, Lorentz Center, **Leiden**  
23-24/1/2014 Discussant at XV Workshop on Quantitative Finance, **Firenze**  
18-19/12/2013, Statistics for Stochastic Processes and Analysis of High Frequency Data, U. **Paris 6**  
14-16/12/2013 7<sup>th</sup> International Conference on Computational and Financial Econometrics (CFE), U. of **London**  
27-29/6/2013 European University Institute, **Fiesole**  
18-19/3/2013 JAFEE-Columbia-Institute of Statistical Mathematics (ISM) International Conference on mathematical/quantitative finance, financial engineering and related fields, **Tokyo**  
12-13/3/2012 workshop Statistics for Stochastic Processes: Inference, Limit Theorems, Finance and Data Analysis, Institut Louis Bachelier, Palais Brongniart, **Paris**  
7-8/10/2011 Measuring risk, Bendheim center for Finance, **Princeton** University (funder)  
23-24/5/2011 Seventh Seminar on Stochastic Analysis, Random Fields and Applications, **Ascona**  
15-16/5/2010 **Toulouse School of Economics**, France, invited discussant of a paper by Taesuk Lee and Werner Ploberger (funded by Toulouse School of Economics and Firenze University)  
24-4-2010 **Field Institute Toronto**, Workshop on Financial Econometrics, organized by Yacine Ait-Sahalia, Jianqing Fan, Per Mykland, Thematic Program on Quantitative finance January-June 2010, missed out travel because of Iceland volcano dust cloud  
20-4-2010 Johns Hopkins Carey **Business School, Baltimore**, Maryland, Workshop on Econometrics, missed out travel because of Iceland volcano dust cloud  
12-3-2010 **Ritsumeikan** University, Workshop on Stochastic Processes and Applications to Mathematical Finance  
16/5/2009 **Toulouse School of Economics**, France (funded by Toulouse School of Economics and Firenze U.)

## Contributed recent talks

2019 XX Quantitative Finance Workshop, 23-25 gennaio, **ETH, Zurich**  
2018 Frontiers in High-Frequency Financial Econometrics, 28-29 settembre, Scuola Normale Superiore **Pisa**, I also was **Chairperson**  
2018 **SoFiE** conference, Lugano 12-14 June  
2017 Accepted paper at **SoFiE** conference, New York 21-23 June  
2017 XVIII Workshop on Quantitative Finance, **Milano Bicocca**, 25-27/1, I also was **Chairperson**  
2016 9<sup>th</sup> SoFiE conference 15/17-6-2016, **Hong Kong**  
2016 accepted for presentation at ICASQF conference 6/2016, **Colombia**, and at the Bachelier Finance Society conference, 7/2016 in New York, both declined for teaching duties  
2016 MAF (mathematical and statistical Methods for Actuarial sciences and Finance) conference, **Parigi** 30/3-1/4  
2016 XVII Workshop on quantitative finance, **SNS Pisa**, 28-29/1  
2015 DynStoch conference, **Lund**, 27-29/5/2015  
2013 XIV Workshop on quantitative finance **Rimini**, 24-25 of January

2011	Workshop Statistical inference and numerical analysis of stochastic processes: probabilistic tools and application to financial econometrics, 17-18 Marzo, <b>Firenze</b>
2011	<b>Padova</b> 27,28 gennaio, XII Workshop on quantitative finance
2011	convegno Modeling and managing financial risks, <b>Paris</b> 10-13 gennaio
2010	XI Workshop on quantitative finance, <b>Palermo</b> 28-29 Gennaio
2009	Research week in <b>Florence</b> <i>Stochastic processes and financial econometrics</i> , DiMaD, 9-11 settembre
2009	Eurandom, Statistical inference for Lévy processes with applications to finance, <b>Eindhoven</b> , 15/7
2009	Firenze-Ritsumeikan workshop, <b>Firenze</b> , 12-13 marzo
2009	X Workshop in Quantitative Finance, <b>Politecnico di Milano</b> , 29-30 gennaio

## ORGANIZATION OF SCIENTIFIC EVENTS IN FLORENCE

### Courses

2007	<i>Jump processes and finance</i> , course held by <b>Jean Jacod</b> , Univ. Paris 6, at DiMaD, 7-9/3
2006	<i>Copulas, multidimensional Lévy processes and applications in finance</i> , <b>course</b> held by <b>Peter Tankov</b> , Univ. Paris 7, at DiMaD, 15-17/11

### Conferences

2018	Conference <i>Portfolio managing, stochastic processes and financial econometrics</i> , 18/5 Firenze
2013	Fifth Florence-Ritsumeikan Workshop on <i>Stochastic Processes and Applications to Finance and Risk Management</i> , 12-13/3/2013
2011	Workshop <i>Statistical inference and numerical analysis of stochastic processes: probabilistic tools and application to financial econometrics</i> , 17-18 March 2011
2011	Third Florence-Ritsumeikan Workshop <i>on Probability and Finance: Modeling and pricing finance and insurance assets in a risk management perspective</i> , Florence 16-17/3/2011
2009	Reserach week in Florence <i>Stochastic processes and financial econometrics</i> , on the occasion of Jean Jacod and Nour Meddahi visiting of DiMaD, 9-11/9/2009

### Seminars

19/05/2009	Second Seminars day <i>ECONOMETRICS AND MATHEMATICS OF FINANCE</i>
20/1/2009	Seminars day <i>ECONOMETRICS AND MATHEMATICS OF FINANCE</i>
27/2/2008	Seminars half day High frequency data
1998-	organization of seminars in 1998, 1999, 2006, 2007, 2009-2013, 2016-2018
2009-2013	<b>Delegate</b> for DiMaD of the joint <b>seminars</b> with the Dept. of Economics of Florence U.

### Co-organization of meetings in Florence

2014	Workshop <i>Dependence in risk measurement and risk management</i> , 18-19/12/2014
2014	XV Workshop on Quantitative Finance, Firenze 23,24/1/2014
2005	<i>New Mathematical Methods in Risk Theory</i> , Workshop in honour of Hans Bühlmann, 6-8/10
2004	meeting <i>Mathematical Finance Seminars</i> , at DiMaD, 28/4/2004
2003	meeting <i>Mathematical Finance Seminars</i> , at DiMaD, 18/3/2003

## TEACHING ACTIVITIES

### Abroad

2018	<i>Markowitz Portfolio theory</i> , a course to Bachelor students and a course to MBA students, <b>IPAG Business School (Grandes Écoles), Paris</b> , 9-12/4, Erasmus programme
2009	<i>Stochastic processes, jumps and some applications to finance</i> , MSc and PhD students course, <b>Ritsumeikan University</b> , Japan, 17-24/2/2009

### In Italy

2019	<i>Quantitative models for business management</i> (54h), <b>MSc</b> , Verona U. (Vicenza site)
1998,2018	<i>Matematica finanziaria</i> (48h in 2018, 24h in 1998), undergraduate students, Florence U
1999	<i>Introduzione alla matematica finanziaria</i> , <b>PhD</b> students, Florence U
2015-2018	<i>Complementi di matematica finanziaria</i> , <b>MSc</b> course, University of Florence
2012-2017	<i>Matematica per le applicazioni economiche</i> (72h, 48h in 2014, 36h in 2013 and 2012) undergraduate students, Florence U
2013,2014	<i>Portfolio choice and optimization</i> (48h), <b>MSc</b> course, Florence U
2012	<i>Matematica finanziaria e teoria dei mercati</i> (24h), undergraduate students, Florence U
2000-2009	<i>Metodi matematici 1</i> (48h), undergraduate students, Florence U. (Prato site)
2008,2009	<i>Metodi matematici 2 e matematica finanziaria</i> (24h), undergraduate students, Florence U (Prato site)
2003	<i>Metodi matematici per la qualità</i> (24h), undergraduate students, Florence U. (Prato site)
2004-2006	<i>Matematica generale</i> , polo universitario penitenziario, Florence U. (Prato site)

2005-2009 *Probabilità e statistica matematica*, Tutor for the remote course Nettuno, undergraduate students, 2005,2006,2008,2009 Florence U

2003-2014 *Matematica per le applicazioni economiche*, preparatory course (6h in 2014, 8h in 2004 and 2003), undergraduate, students, 2003,2004,2012,2014 Florence U, 2008 Prato site

1998,2010,2011 *Matematica per le applicazioni economiche* (24h), Support (exercises), undergraduate students, Florence U

1998-2003 *Matematica finanziaria* (20h), Support (exercises), undergraduate, 1998,2001-2003,Florence U

1998-2001 *Matematica per le applicazioni economiche e finanziarie*, Support (exercises), undergraduate

1998 *Processi stocastici*, Support (exercises), Florence U

2007 *Calcolo 1*, Support (exercises), undergraduate students, Florence U

1993 *Trigonometric functions*, preparatory course, undergraduate students, Pisa U

1993 *Matematica*, Secondary School, substitute teaching, Macerata, 23/10- 9/11