Marco Tolotti

Curriculum Vitae

August 2021

position: Associate Professor (November 2016 - to present)

appointment: Vice-director of the Department of Management, Ca' Foscari

affiliation: Department of Management
Università Ca' Foscari Venezia
Cannaregio 873 - 30121, Venice, Italy

scientific-disciplinary sector (Italian university system):
SECS-S/06 "Metodi matematici dell'economia e delle scienze attuariali e finanziarie"

Member of the AMS (American Mathematical Society), EMS (European Mathematical Society) and AMASES (Italian Association of Mathematics Applied to Economic and Social Sciences).

Former academic positions

Assistant Professor, Department of Management, Università Ca' Foscari Venezia
(January 2011 - October 2016)

Assistant Professor, Department of Applied Mathematics, Università Ca' Foscari Venezia
(December 2008 - December 2010)

Postdoctoral Position, Department of Finance, Bocconi University, Milano
(March 2006- November 2008)

Graduate Studies

Ph.D. in Applied Mathematics to Finance and Insurance,
Scuola Normale Superiore, Pisa, July 2008

Master of Advanced Studies in Finance,
ETH Zurich and University of Zurich, February 2005

Laurea in Matematica, University of Padova, March 2002

Professional and Academic Services

Vice-director of the Department of Management, Ca' Foscari, since October 2020.

Member of the Teaching Committee (Collegio Docenti) of the *PhD in Management* (DOT1336584), Ca' Foscari Venezia, since November 2015.

Member of the Teaching Committee of the Laurea Magistrale (LM-77) *Management*, Ca' Foscari, since June 2018. (url: https://www.universitaly.it/index.php/scheda/sua/35471#3)

Member of the Academic Senate, Ca' Foscari Venezia, October 2014 - September 2017.

January 2020: Appointment as an external reviewer for the PhD in Economics and Finance, Bocconi University.

November 2017: Appointment as an external referee for the Habilitation (venia docendi) in Business Administration and Management, University of Klagenfurt.

December 2015: Member of the committee of the final defense of the "Vilfredo Pareto" Doctorate in Economics, University of Torino.

Referee for:
Applied Mathematics and Computation; BRQ Business Research Quarterly; Chaos, Solitons & Fractals; Complex Adaptive Systems Modeling; EJOR; Economics of innovation and New Technology; Finance and Stochastics; Journal of Behavioral and Experimental Finance; Journal of Credit Risk; Journal of Economic Interaction and Coordination; Journal of Financial Risk Management; Mathematical Finance; Physica A; Plos One; Review of Managerial Science; Stochastic Systems.

International conferences (scientific and/or organizing committee):

- *MAF2020, Mathematical and Statistical Methods for Actuarial Sciences and Finance.* Organized online, 18-25 September 2020.
- *Interactions in complex economic systems: contagion, innovation and crises and Venice-Klagenfurt Workshop 2018*, Venice 2 March 2018.
- *MAF2012, Mathematical and Statistical Methods for Actuarial Sciences and Finance*, Venice 10-12 April 2012.

Official Appointments as Visiting Professor/Scholar

UTS Business School, University of Technology Sydney, 2-11 January 2019.
UTS Business School, University of Technology Sydney, 21 July - 20 August 2017.
School of Accounting, Economics & Finance, Univ. of Wollongong, 8 July - 21 July 2017.
UTS Business School, University of Technology Sydney, 3 April - 30 April 2016.
UTS Business School, University of Technology Sydney, 15 March - 11 April 2015.
School of Math. Sciences, Monash University (Melbourne), 4 July - 4 August 2013.
UTS Business School, University of Technology Sydney, 5-13 August 2013.

Other research visits

School of Electronic Eng. & Computer Science, Queen Mary Univ., London, July 2014.
Institute of Mathematics, Technische Universität Berlin, 19 - 25 May 2013.
School of Eng. and Applied Science, Columbia University (New York), 2 - 10 Nov. 2008.

Prizes and Academic Awards

Winner of the Research Prize 2016 at the Department of Management, Università Ca' Foscari Venezia for the publication "*Optimal policies in two-step binary games under limited resources*" coauthored with Paolo Pellizzari and Elena Sartori.

Fund raising activities

Ca' Foscari funding for the research project "Interactions in complex economic systems: innovation, contagion and crises": Euro 49500

UTS Sydney funding for positions of Visiting Professor (2013, 2015, 2019): Euro 8000

Refereed Publications

1. TOLOTTI, M; YEPEZ, J. (2020) Hotelling-Bertrand duopoly competition under firm-specific network effects in JOURNAL OF ECONOMIC BEHAVIOR & ORGANIZATION, vol. 176, pp. 105-128 (ISSN 0167-2681)

2. MARSIGLIO, S.; TOLOTTI, M. (2020) Motivation crowding-out and green-paradox-like outcomes in JOURNAL OF PUBLIC ECONOMIC THEORY, Available On Line (ISSN 1097-3923)

3. DAI PRA, P.; SARTORI, E.; TOLOTTI, M. (2019) Climb on the Bandwagon: Consensus and Periodicity in a Lifetime Utility Model with Strategic Interactions in DYNAMIC GAMES AND APPLICATIONS, vol. 9, pp. 1061-1075 (ISSN 2153-0785)

4. LIUZZI, D., PELLIZZARI, P., TOLOTTI, M. (2019) Fast traders and slow price adjustments: an artificial market with strategic interaction and transaction costs in JOURNAL OF ECONOMIC INTERACTION AND COORDINATION, vol. 14, pp. 643-662

5. MARSIGLIO, S., TOLOTTI, M., (2018) Endogenous growth and technological progress with innovation driven by social interactions in ECONOMIC THEORY, vol. 65, pp. 293-328 (ISSN 0938-2259)

6. DAI PRA, P., SARTORI E., TOLOTTI, M. (2018) Strategic Interaction in Interacting Particle Systems, Probabilistic Cellular Automata. Emergence, Complexity and Computation, Springer, vol. 27, pp. 53-67 (ISBN 978-3-319-65556-7; 978-3-319-65558-1)

7. DOTTA, P., TOLOTTI, M., YEPEZ, J. (2017) Measuring Brand Awareness in a Random Utility Model, ADVANCES IN COMPLEX SYSTEMS, vol.20(02n03).

8. LIUZZI, D., PELLIZZARI, P., TOLOTTI, M. (2017) Optimality of a Two-Tier Rate Structure for a Transaction Tax in an Artificial Market , Highlights of Practical Applications of Cyber-Physical Multi-Agent Systems, Springer International Publishing, vol. 722, pp. 95-106 (ISBN 978-3-319-60284-4; 978-3-319-60285-1) (ISSN 1865-0929)

9. BAUSO D., PESENTI R., TOLOTTI, M. (2016) Opinion Dynamics and Stubbornness Via Multi-Population Mean-Field Games, JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS, vol. 170(1), pp 266-293

10. FONTINI, F.; SARTORI, E.; TOLOTTI, M. (2016) Are transaction taxes a cause of financial instability? in PHYSICA. A, vol. 450, pp. 57-70 (ISSN 0378-4371)

11. COLAPINTO C.; SARTORI E.; TOLOTTI M. (2016) How the innovation diffusion models from the past can help us to explain marketing in the new media era, in Looking Forward, Looking Back: Drawing on the Past to Shape the Future of Marketing, Springer International Publishing, pp. 726-732 (ISBN 978-3-319-24182-1) DOI: 10.1007/978-3-319-24184-5_176

12. PAOLO PELLIZZARI, ELENA SARTORI, MARCO TOLOTTI (2015) Optimal policies in two-step binary games under limited resources in ADVANCES IN COMPLEX SYSTEMS, Vol. 18, pp. 1550020 DOI: 10.1142/S0219525915500204

13. PAOLO PELLIZZARI, ELENA SARTORI, MARCO TOLOTTI (2015) Trade-In Programs in the Context of Technological Innovation with Herding , Advances in Artificial Economics in LECTURE NOTES IN ECONOMICS AND MATHEMATICAL SYSTEMS, Berlin, Germany: Springer Verlag Germany, vol. 676, pp. 219-230 (ISBN 9783319095776) (ISSN 0075-8442)

14. COLAPINTO C.; SARTORI E.; TOLOTTI M. (2014) Awareness, persuasion, and adoption: Enriching the Bass model, in PHYSICA. A, vol. 395, pp. 1-10 (ISSN 0378-4371; DOI: 10.1016/j.physa.2013.10.001)

15. DAI PRA P.; SARTORI E.; TOLOTTI M. (2013) Strategic interaction in trend-driven dynamics, in JOURNAL OF STATISTICAL PHYSICS, vol. 152(4), pp. 724-741 (ISSN: 0022-4715; DOI: 10.1007/s10955-013-0784-y)

16. BARUCCI E.; TOLOTTI M. (2012) Social Interaction and Conformism in a Random Utility Model, in JOURNAL OF ECONOMIC DYNAMICS AND CONTROL, vol. 36(12), pp. 1855-1866 (ISSN 0165-1889)
17. BARUCCI E.; TOLOTTI M. (2012) Identity, reputation and social interaction with an application to sequential voting, in JOURNAL OF ECONOMIC INTERACTION AND COORDINATION, vol. 7 (1), pp. 79-98 (ISSN 1860-711X)
18. TOLOTTI M. (2012) A linear filtering approach for incomplete accounting information models, in ADVANCES AND APPLICATIONS IN STATISTICS, vol. 29 (2), pp. 135-151 (ISSN 0972-3617)
19. DAI PRA P.; TOLOTTI M. (2009) Heterogeneous credit portfolios and the dynamics of the aggregate losses., in STOCHASTIC PROCESSES AND THEIR APPLICATIONS, vol. 119 (9), pp. 2913-2944 (ISSN 0304-4149)
20. DAI PRA P.; RUNGGALDIER W.J.; SARTORI E.; TOLOTTI M. (2009) Large portfolio losses: a dynamic contagion model, in THE ANNALS OF APPLIED PROBABILITY, vol. 19(1), pp. 347-394 (ISSN 1050-5164)
21. BATTAUZ A.; DE DONNO M.; SBUELZ A.; TOLOTTI M. (2009) Risk tolerance levels for insurance companies, in GIORNALE DELL'ISTITUTO ITALIANO DEGLI ATTUARI, GIORNALE DELL'ISTITUTO ITALIANO DEGLI ATTUARI, vol. 72, pp. 289-300 (ISSN 0390-5780)
22. DAI PRA P.; RUNGGALDIER W.; TOLOTTI M. (2004) Pathwise optimality for benchmark tracking, in IEEE TRANSACTIONS ON AUTOMATIC CONTROL, vol. 49(3), pp. 386-395 (ISSN 0018-9286)

Working Papers and other publications

1. HE, X.Z., SHI, L., TOLOTTI, M. (2019) The Social Value of Asymmetric Information Revisited (ISSN 1556-5068) (Working paper)
2. HE, X.Z., SHI, L., TOLOTTI, M. (2018) Are We Better-off for Working Hard?, Sydney, School of Finance, University of Technology, vol. 391, pp. 1-34 (ISSN 1441-8010) (Working paper)
3. TOLOTTI, M., YEPEZ, J. (2018) Hotelling-Bertrand duopoly competition under firrm-specific network e effects, vol. 6, pp. 1-40 (ISSN 2239-2734) (Working paper)
4. KOLLMANN, T., MARSIGLIO, S., SUARDI, S., TOLOTTI, M. (2018) Racial Segregation and The Dynamics of Tipping , University of Wollongong, vol. 3, pp. 1-11 (Working paper)
5. DAI PRA, P., SARTORI, E., TOLOTTI, M. (2018) Climb on the Bandwagon: Consensus and periodicity in a lifetime utility model with strategic interactions, arXiv preprint arXiv:1804.07469. (Working paper)

6. MARSIGLIO S.; TOLOTTI.M (2015) Endogenous Growth and Technological Progress with Innovation Driven by Social Interactions, Woking paper 9/2015, in WORKING PAPER SERIES, Venezia, Department of Management, Università Ca' Foscari Venezia., pp. 1-15, ISSN 2239-2734.

7. P. PELLIZZARI; E. SARTORI; M. TOLOTTI (2014) Trade-in programs in the context of technological innovation with herding, Working Paper 4/2014, in WORKING PAPER SERIES, Venezia, Department of Management, Università Ca' Foscari Venezia., pp. 1-15, ISSN 2239-2734.

8. COLAPINTO C.; SARTORI E.; TOLOTTI M. (2012) A two-stage model for diffusion of innovations, in Working Paper Series, Department of Management, Università Ca' Foscari Venezia , pp. 1-20, ISSN: 2239-2734. Working Paper n.16, October 2012.

9. DAI PRA P.; FONTINI F.; SARTORI E.; TOLOTTI M. (2011) Endogenous equilibria in liquid markets with frictions and boundedly rational agents, in Working Paper Series, Venice, Department of Management, Università Ca' Foscari Venezia , pp. 1-35, ISSN: 2239-2734. Working Paper n.7, August 2011.

10. BARUCCI E; TOLOTTI M. (2009) The dynamics of social interaction with agents' heterogeneity, in Working Papers, Department of Applied Mathematics, Ca' Foscari University of Venice, vol. , pp. 1-30, ISSN: 1828-6887. Working Paper n.189, July 2009.

11. TOLOTTI M. (2008) The impact of contagion on large portfolios. Modeling aspects. Scuola Normale Superiore, Pisa, June 2008. (PhD Thesis)

Invited Talks (Selection)

London (Queen Mary), Melbourne (Monash), Sydney (UTS Business School), Wollongong (UOW), New York (Columbia), TU Berlin, Klagenfurt (Alpen-Adria), Firenze, Bocconi, Milano Politecnico, Novara, Padova, Sant'Anna Pisa, Sapienza (Roma), Pisa, Verona.

Presentations at refereed conferences (2010-2021)

European Financial Management Association, Annual Meeting June 30 - July 03, 2021 (online). *"Social Value of Information Uncertainty'*

47th Eastern Economic Association Conference, New York, 26-27 February 2021 (online). *"A semi-closed learnable equilibrium in a financial market with information"*

43rd AMASES Meeting, Perugia, September 2019.
"Asymmetric information and learning by imitation in agent-based financial markets"

24th Workshop on Economics & Heterogeneous Interacting Agents, London, June 2019.
"Welfare Analysis under Probabilistic Choices in a REE Model"

24th International Conference Computing in Economics and Finance (CEF), Milan, 19-21 June 2018. *"Are we better-off for working hard?"*

41th AMASES Meeting, Cagliari, September 2017.
"Fast traders and slow price adjustments: an artificial market with strategic interaction and transaction costs"

15th Internat. Conference on Practical Applications of Agents and Multi-Agent Systems (PAAMS), Porto, Portugal, 21-23 June 2017.
"Optimality of a Two-Tier Rate Structure for a Transaction Tax in an Artificial Market"

39th AMASES Meeting, Padova, September 2015.
"Endogenous Growth & Technological Progress in a microfounded model of Innovation'

Artificial Economics Conference 2014, Barcelona, 1-2 September 2014.
"Trade-in programs in the context of technological innovation with herding"

16th Biennial Academy of Marketing Science - World Marketing Congress, July 2013.
"How the innovation diffusion models from the past can help us to explain marketing in the new media era"

XXXVI Convegno AMASES 2012, Vieste, September 2012.
"Awareness and adoption in the new media era: a micro founded approach"

12th Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics, Wien, May 2012.
"Endogenous equilibria in liquid markets with frictions and boundedly rational agents"

16th Workshop on Economics & Heterogeneous Interacting Agents (WEHIA), Ancona, June 2011.
"Price formation in mean field games under market frictions and social interactions."

XII Workshop on Quantitative Finance, Padova, January 2011.
"Price formation in mean field games under market frictions and social interactions."

11th Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics, Amsterdam, June 2010.
"Microfoundation of conformism in a reduced form model for social interactions"

Society for Nonlinear Dynamics & Econometrics 18th Annual Symposium, Novara, April 2010. *"Microfoundation of conformism in a reduced form model for social interactions"*

Doctoral and Postdoctoral students

2018 - to present: Alessandro Marin (PhD in Management, Ca' Foscari)

2015 - 2017: Jorge Enrique Yepez Zuniga (PhD in Economics, Ca' Foscari)

2016 - 2017: Danilo Liuzzi (PostDoc), *Interactions in complex economic systems: innovation, contagion and crises.*

2012 - 2013: Elena Sartori (PostDoc), *The role of social interaction in choice models.*

2011 - 2012: Elena Sartori (PostDoc), *Probabilistic techniques for decision sciences.*

Teaching experiences

The courses marked with '(E)' have been taught in English

Ph.D. courses

"Mathematics for management studies" (E), Ph.D. progam in Management, Ca' Foscari

"Mathematics (Preparatory Course)" (E), Graduate School of Economics and Management (GSEM), Ca' Foscari University of Venice and University of Padova.

International Master Programs (Master I e II livello)

"Mathematical models for Finance" (E), Master of Quantitative Finance and Risk Management (MAFINRISK), Bocconi University, Milan.

"Microeconomics for Finance" (E), International Master in Economics and Finance (IMEF), Ca' Foscari.

"Stochastic processes for finance" (E), International Master in Economics and Finance (IMEF), Ca' Foscari.

"Mathematics" (E), International Master in Economics and Finance (IMEF), Ca' Foscari.

Master programs (Laurea magistrale LM-77)

"Managerial Analytics" (E), Master in Management, Ca' Foscari. (starting AA2019/20)

"Business Process Analytics" (E), Master in Management, Ca' Foscari. (starting AA2019/20)

"Techniques for managerial decisions" (E), Master in Internat. Management, Ca' Foscari.

"Tecnica delle Assicurazioni", Master in Economia e Finanza, Ca' Foscari.

"Modelli quantitativi per la finanza", Master in Finance, Bocconi University, Milan.

Undergraduate programs (Laurea triennale)

"Modelli e Metodi per le Decisioni Aziendali", Economia Aziendale, Ca' Foscari.

"Mathematics" (E), Economics and Management, Ca' Foscari.

"Matematica", Commercio Estero e Turismo, Ca' Foscari.