CURRICULUM VITÆ

OF

Paolo Pellizzari

1. General information

Current position. Professor of "Mathematical methods for economics, finance and actuarial sciences", Università Ca' Foscari Venezia, since 2016.

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Biographical notes.

• Born June 27, 1967.

• Laurea (Degree) in Mathematics, Università of Padova (110/110 cum laude), 1992.

• PhD in "Mathematics for Economic Decisions", Università di Trieste, 1997.

2. Research areas

Research is mainly focused on computational economics/finance and computational models of social systems:

- (1) Agent-based models of stock markets, with emphasis on structural assumptions, price formation mechanism and continuous double auction.
- (2) Agent-based models of tax evasion (including features like endogenous auditing schemes, public expenditure and conformity).
- (3) Effects of managers and customers' interaction in investment funds; pricing and hedging of multi-asset and exotic derivatives, using Monte Carlo methods and variance reduction techniques.

3. Main publications

At the time of writing, Scopus reports 110 citations, h-index 6; Google Scholar reports 474 citations, h-index 11, i10-index 12.

Articles on international journals.

- (1) C. Cruciani, A. Moretti, P. Pellizzari, "Dynamic patterns in similarity-based cooperation: an agent-based investigation", *Journal of Economic Interaction and Coordination*, forthcoming, 2016.
- (2) P. Pellizzari, E. Sartori, M. Tolotti, "Optimal policies in two-step binary games under social pressure and limited resources", *Advances in Complex Systems*, 18 (5-6), 1550020, 2015.
- (*) A. Cosma, D. Cecchet, S. Gaiani, A. Coracina, P. Pellizzari, C. Pizzi, N. Veronese, D. Sacerdoti, P. Tessari, "Clinical and biochemical determinants of the extent of liver steatosis in T2DM", European Journal of Gastroenterology & Hepatology, 1386–1391, 2015.
- (3) R. Bird, P. Pellizzari, D. Yeung, "Performance implications of active management of institutional mutual funds", *Accounting & Finance*, 55 (1), 1–27, 2015.

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- (4) P. Pellizzari, D. Rizzi, "Citizenship and power in an agent-based model of tax compliance with public expenditure", *Journal of Economic Psychology*, 40, 35–48, 2014.
- (5) S. Fano, M. Li Calzi, P. Pellizzari, "Convergence of outcomes and evolution of strategic behavior in double auctions", *Journal of Evolutionary Economics*, 23, 3, 513–538, 2013.
- (6) C. Chiarella, X. He, P. Pellizzari, "A dynamic analysis of the microstructure of moving average rules in a double auction market", *Macroeconomic Dynamics*, 16, 556–575, 2012.
- (*) A. Coracina, S. Gaiani, A. Cosma, P. Pellizzari, C. Pizzi, S. de Kreutzenberg, D. Cecchet, D. Sacerdoti, P. Tessari, "No association between the degree of liver steatosis and early signs of vasculopathy in T2DM", NMCD. Nutrition Metabolism and Cardiovascular Diseases, vol. 22, p. e11-e12, 2012.
- (7) R. Bird, L. Casavecchia, P. Pellizzari, P. Woolley, "The impact on the pricing process of costly active management and performance chasing clients", *Journal of Economics Interaction and Coordination*, 6, 61–82, 2011.
- (8) P. Pellizzari, F. Westerhoff, "Some effects of transaction taxes under different microstructures", *Journal of Economic Behavior and Organization*, 72, 3, 850–863, 2009.
- (9) M. LiCalzi, P. Pellizzari, "Simple market protocols for efficient risk sharing", *Journal of Economic Dynamics and Control*, 31, 11, 3568–3590, 2007.
- (10) P. Pellizzari, A. Dal Forno, "A comparison of different trading protocols in an agent-based market", *Journal of Economic Interaction and Coordination*, 2, 1, 27–43, 2007.
- (11) A. Fogale, P. Pellizzari, M. Warglien, "Learning and equilibrium selection in a coordination game with heterogeneous agents", *Physica A*, 380, 519–527, 2007.
- (12) P. Pellizzari, "Static Hedging of multivariate derivatives by simulation", *European Journal of Operational Research*, 166, 2, 507–519, 2005.
- (13) M. LiCalzi, P. Pellizzari, "Fundamentalists clashing over the book: a study of order-driven stock markets", *Quantitative Finance*, 3, 470–480, 2003.
- (14) A. Gamba, P. Pellizzari, "Utility based pricing of contingent claims in incomplete markets", *Applied Mathematical Finance*, **9**, 241–260, 2002.
- (15) P. Pellizzari, "Efficient Monte Carlo Pricing of European Options Using Mean Value Control Variates", *Decisions in Economics and Finance*, **24**, 2, 107–126, 2001.
- (16) P. Pellizzari, B. Viscolani, "Approximate vs Exact Algorithms to Solve the Maximum Line Length Problem", *Optimization*, **49**, 5-6, 529–551, 2001.

Editor.

- (1) P. Pellizzari, F. Wall (Editors), Special issue "Simulation in Management Accounting and Management Control", *Journal of Management Control*, Volume 26, Issue 2-3, August 2015.
- (2) P. Pellizzari, F. Wall, "Simulation in management accounting and management control: editorial", *Journal of Management Control*, 26 (2-3), 95–98, 2015.
- (3) M. LiCalzi, L. Milone, P. Pellizzari (Editors), "Progress in Artificial Economics: Computational and Agent-Based Models", Lecture Notes in Economics and Mathematical Systems, Volume 645, Springer, 2010.

Chapters of books / collective volumes.

- (1) P. Pellizzari, E. Sartori, M. Tolotti, "Trade-in programs in the context of technological innovation with herding", in "Advances in Artificial Economics", LNEMS vol. 676, 219–230, Springer, 2015.
- (2) P. Pellizzari, "In Whose Best Interest? An Agent-Based Model of High Frequency Trading", in "Trends in Practical Applications of Agents, Multi-Agent Systems and Sustainability", Advances in Intelligent Systems and Computing, vol. 372, 11–18, Springer, 2015.
- (3) D. Ladley, P. Pellizzari, "The simplicity of optimal trading in order book markets", in Roberto Dieci, Xue-Zhong He, Cars Hommes, Eds., *Nonlinear Economic Dynamics and Financial modelling, Essays in Honour of Carl Chiarella*, 183–199, Springer, 2014.
- (4) S. Calimani, P. Pellizzari, "Tax Enforcement in an Agent-Based Model with Endogenous Audits", in S. Leitner, F. Wall, Eds., *Artificial Economics and Self Organization*, LNEMS vol. 669, 41–53, Springer, 2014.
- (5) C. Cruciani, A. Moretti, Paolo Pellizzari, "Sense making and information in an agent-based model of cooperation", in A. Teglio, S. Alfarano, E. Camacho-Cuena, M. Ginés-Vilar (Eds.), *Managing Market Complexity: The Approach of Artificial Economics*, LNEMS vol. 662, 127–139, Springer, 2012.
- (6) S. Fano, P. Pellizzari, "Time-dependent trading strategies in a continuous double auction", in S. Osinga, Gj. Hofstede and T. Verwaart (Eds.), *Emergent Results of Artificial Economics*, LNEMS vol. 652, 165–176, Springer, 2011.
- (7) M. LiCalzi, L. Milone, P. Pellizzari, "Allocative efficiency and trader's protection under zero intelligence behavior", in H. Dawid and W. Semmler (Eds.), *Computational Methods in Economic Dynamics*, 5–28, Springer, 2011.

The complete list of publications can be browsed at http://virgo.unive.it/paolop/biopubetc.html

4. Teaching

Courses. Data have been provided by the Ca' Foscari registrar, from 2006/07. The columns show academic year, title of the course, average satisfaction of the students attending the course (S), average clarity of exposition of the professor (C) and, for comparison, average satisfaction of all students in Economics (SE), average clarity of exposition of all professors in Economics (CE). Grades are in the range 1-4.

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Acad. Y	Title	S	SE	C	CE
2014/15	Internat Assets Allocation Risk Man-	3,26	3,03	3,47	3,17
	agement for Emerg Markets				
	Metodi Matem per Decis Impresa	3,83	3,03	4,00	3,14
	Matematica	3,37	3,03	3,54	3,14
	Computational Tools for Econ and	3,10	3,03	3,34	3,17
	Manag (Comptools)				
2013/14	Metodi Matem per Decis Impresa	3,60	3,03	3,80	3,08
	Matematica	3,31	3,03	3,45	3,08
	Comptools	3,10	3,03	3,25	3,08
2012/13	Metodi Matem per Decis Impresa	3,58	3,17	3,92	3,29
	Matematica	3,66	3,17	3,85	3,29
	Comptools	3,50	3,17	3,66	3,29
2011/12	Matematica	3,46	3,13	3,49	3,30
	Comptools	3,25	3,13	3,44	3,30
2010/11	Comptools	3,35	3,08	3,52	3,17
	Istituz di Matematica II - 1	3,56	3,08	3,72	3,17
	Istituz di Matematica II - 2	3,39	3,08	3,58	3,17
2009/10	Compl di Matem e Prob - 1	3,77	3,10	3,85	3,19
	Compl di Matem e Prob - 2	3,86	3,10	3,92	3,19
	Comptools	3,24	3,10	3,45	3,19
2008/09	Economia Comp I	3,56	3,05	3,61	3,19
	Istituzioni di Matem II	3,31	3,05	3,23	3,19
2007/08	Matematica II	3,60	3,06	3,79	3,22
	Economia Comp I	3,80	3,06	3,80	3,22
	Informatica I	3,67	3,06	3,77	3,22
2006/07	Matematica II	3,58	3,05	3,76	3,20
	Economia comp I	3,83	3,05	3,83	3,20
	Informatica I	3,51	3,05	3,65	3,20
	Media	3,50	3,07	3,64	3,19

Teaching evaluations for the following coruses are not available (M=Master in "International Master in Economics and Finance" (IMEF), PhD=PhD program in Economics, CFH=Ca' Foscari Harvard Summer School, VIU=Venice International University):

Acad. Y	Type	Course
from 11/12	PhD	Mathematics
2014/15	CFH	Introduction to complexity in economic and social systems
2015/16	CFH	Introduction to complexity in economic and social systems
from 06/07	M	Mathematics (up to 12/13)
2009/10	PhD	Market Engineering
2007/08	VIU	Social Simulation
2006/07	CFH	Artificial Economics

Tesi. The following table shows the number of supervised students (doctorate, laurea magistrale, laurea specialistica, laurea triennale, laurea "vecchio ordinamento").

Acad. Y	PhD	LM	LS	LT	LVO	Tot			
2015/2016*	1	1				2			
2014/2015		3		4		7			
2013/2014		3		8		11			
2012/2013				10		10			
2011/2012		1		10		11			
2010/2011		6		6		12			
2009/2010	1	3	1	2		7			
2008/2009			3	10		13			
2007/2008			2	5		7			
2006/2007			1	7		8			
2005/2006				3		3			
2004/2005			2	1	1	4			
2003/2004				1	4	5			
2002/2003				3	5	8			
2001/2002					5	5			
2000/2001					6	6			
1999/2000					9	9			
1998/1999					2	2			
Tot	2	17	9	70	32	130			
*: still incomplete.									

I'm currently supervising the PhD students Alessandro Moro, Luca Gerotto and co-supervisor of Jorge Yepez.

5. Further information

Main organizational activities.

- Head of the Ca' Foscari School for International Education (SIE), since October 2015.
- Vice provost for elearning at Ca' Foscari, from October 2014 to January 2016.
- Member of the scientific committee of AMASES (Association for Mathematics Applied to Economics and Social Sciences), since 2014.
- Deputy head of the Dept. of Applied Mathematics, from November 2009 to December 2010.
- Deputy dean for part-time students and organization of summer courses, from September 2007 to August 2010.

Funding.

- Local Coordinator of the Marie Curie Innovative Training Network (ITN) ExSIDE, "Expectations and Social Influence Dynamics in Economics", 2017-2020, 516122 € (Principal investigator Herbert Dawid, Bielefeld University, total grant 3782356 €).
- National principal investigator of the project "Computational markets design and agentbased models of trading behavior", PRIN 2007, 83256 €, from October 2008 to September 2010. Other research units were coordinated by prof. A. Consiglio and prof. R. Mantegna, University of Palermo.
- Responsible of 5 research grants funded by FSE: "Tools and bio-inspired algorithms for optimization and management" and "Logistics and distribution of fresh products with low unit price", 2008/2009. Total amount: 145000 €.

- Head of local research unit "Agent-based models of trading mechanisms and efficiency of informational dissemination" (PRIN 2004-2006, 37700 €), in the national project "Models for the price dynamics of financial securities: institutional aspects and behavioral assumptions in a agent-based framework", coordinator prof. Consiglio, University of Palermo.
- The School of Finance and Economics of University of Technology Sydney (UTS) has supported research visits with 27000 AUD (from 2006 to 2010).

Editorial activity. Member of the steering committee of "Artificial Economics", from 2009 to 2014. Artificial Economics conferences are held yearly since 2005 with peer-reviewed contributions to foster a structured multi-disciplinary approach to economics and social sciences.

Awards.

DEPT OF ECONOMICS: Best paper award for "Citizenship and power in an agent-based model of tax compliance with public expenditure", *Journal of Economic Psychology*, 2015, 1000 €.

SCHOOL FOR ADVANCED STUDIES IN VENICE (SSAV): Research award 2009, 1722 €.

DEPT. OF APPLIED MATHEMATICS: Award for outstanding teaching quality, 2008.

FACULTY OF ECONOMICS: Award for outstanding teaching quality, 2007.

School for advanced studies in Venice (SSAV): Research award 2007, 6154 €.

Past positions.

Ca' Foscari University: Associate professor, from 2004 to 2016.

Ca' Foscari University: Assistant professor, from 1998 to 2004.

HARVARD UNIVERSITY: Visiting professor, from June to July 2014 and 2015, teaching the course "Introduction to Complexity in Economics and Social Sciences".

University of Technology Sydney: Visiting professor at the School of Finance and Economics, November-December 2006, September 2008 - January 2009, November-December 2010.

HARVARD UNIVERSITY: Visiting professor, from July to August 2007, teaching the course "Artificial Economics".

UNIVERSITY OF WARWICK: Visiting professor at the Financial Options Research Center (FORC), November 2001.

ITALIAN STATISTICS NATIONAL INSTITUTE (ISTAT): Research assistant, from March to December 1998.

Referee's duties. Last four years: Journal of Management Control, Journal of Evolutionary Economics, National Tax Journal, Review of Behavioral Economics, Economic Journal, OUP Handbook of Computational Economics and Finance, Review of Managerial Science, Computational Economics, Journal of Economic Psychology, Journal of Economic Interaction and Coordination, Journal of Economic Dynamics and Control, Journal of Futures Markets, Journal of Artificial Societies and Social Simulation, European Physical Journal B, Journal of Economic Behavior and Organization, Journal of Risk, Lecture Notes in Economics and Mathematical Sciences, Review of World Economics, Applied Mathematics.

Reviewer for FIRB "Futuro in ricerca 2010", Austrian Academy of Science, Swiss National Science Foundation. Member of habilitation committee of Innsbruck University, 2011. External examiner of PhD students at University of Technology Sydney (UTS), 2009, Université Paris 1 "Sorbonne", 2012 and Wageningen University, 2015.

6. MISCELLANEA

Invited talks.

- XXXVII AMASES Meeting, Stresa (Italy), 2013.
- Université Libre Bruxelles, 2012.
- International Center for Theoretical Physics (ICTP) Trieste, 2011.
- Katholieke Universiteit Leuven, 2010.
- University of Technology Sydney (UTS), 2010.
- University of New South Wales (UNSW), 2010.
- Royal Melbourne Institute of Technology (RMIT), 2010.

Popular press. Research or teaching have been mentioned on:

- Lazard Investment Focus, US Equity Concentrated Team, "Less Is More: A Case for Concentrated Portfolios", 2015, http://tinyurl.com/jektbhv
- Bloomberg, M. Buchanan, "Europe's Tax on Financial Trades Is a Risky Bet", 6/05/13, http://tinyurl.com/c5am2qz
- The Hindu BusinessLine, D. Murali, "Contours of compliance", 11/06/12, http://tinyurl.com/ays7rq4
- Il Gazzettino, P. Pellizzari, "Facebook e l'università: da dannosa distrazione a stimolo per gli studenti", 8/05/12.
- Corriere della Sera, edizione Veneto, A. D'este, "A Ca' Foscari la matematica ora si studia su Facebook", 29/12/11.
- The New York Times, M. Buchanan, "This Economy Does Not Compute", 1/10/08, http://www.nytimes.com/2008/10/01/opinion/01buchanan.html

Scientific memberships.

SIAM: Society for Industrial and Applied Mathematics, since 1999.

AMASES: Associazione per la Matematica Applicata alle Scienze Economiche e Sociali, since 2000.

EMS: European Mathematical Society, since 2015.

Other.

- Court expert advising the judge in litigations on financial derivatives, since 2014 (Courts of Treviso, Pordenone and Venice).
- Chair (co-chair M. LiCalzi) of the sixth edition of the international workshop "Artificial Economics", September 9-10 2010, Treviso, Italy.
- Reviewer for Mathematical Reviews, since 2000 (53 reviews).
- Author of the entries "π" e "Mathematical pastimes" in the exhibition "La natura dà i numeri" (Nature and numbers), opened on October 16-th 1999 (a cura di S. Leggerini, M. Giachi, P. Pellizzari). Author of the section "Mathematical pastimes", 103–106, in the catalogue "La natura dà i numeri", in S. Leggerini (Ed.), Canal, Venezia, 1999.

Venezia, October 5, 2016

Paolo Pellizzari