

Elisa LETIZIA

PLACE AND DATE OF BIRTH: Iglesias, Italy | 2 April 1990
NATIONALITY: Italian
LINKEDIN: www.linkedin.com/in/elisaletizia

ACTIVITIES

JAN, FEB 2017 **visiting researcher** at UNICREDIT - R&D DEPARTMENT, Milan, Italy
(1 week each) data analysis of payments between firms using network theory techniques, and test of the adjustment for the internal firms rating based on network information

MAR - JUL 2016 **research and support activity** for BIGDATA@MIUR
working group on Big Data of the Italian Ministry of Education, Universities and Research. Final report (in Italian):
<http://www.istruzione.it/allegati/2016/bigdata.pdf>

EDUCATION

Current **PhD in Financial Mathematics,**
Nov 2014 SCUOLA NORMALE SUPERIORE, Italy
Thesis: *Hierarchy and contagion in financial networks*
Study of hierarchical structures in networks, their detectability, their influence on spread of contagion, with focus on complex networks built from financial data
Supervisor: Prof. Fabrizio Lillo

MAR - JUL 2017 **visiting PhD student**
UNIVERSITY OF ZURICH - DEPARTMENT OF BANKING AND FINANCE, CH
Study of how a hierarchical structure in financial networks affects financial stability
Advisor: Prof. Stefano Battiston

Keywords Complex Financial Networks, Hierarchies, Systemic Risk
Corporate Risk Scoring, Machine Learning

July 2014 **MSc in Mathematical Engineering,**
SEP 2012 POLITECNICO DI TORINO, Italy
110 cum laude/110 · GPA: 29.9/30.0

JAN - JUN 2013 **Erasmus student** at QUEEN MARY UNIVERSITY OF LONDON, UK
GPA: 98.7/100.0

Keywords Graph Theory, Statistics, Financial Mathematics, Optimisation

JULY 2012 **BSc in Mathematics for engineering sciences**
SEP 2009 POLITECNICO DI TORINO, Italy
110 cum laude/110 · GPA: 29.4/30.0

Keywords Calculus, Probability, Operation Research

LANGUAGES

ITALIAN:	Mothertongue	FRENCH:	Basic Knowledge
ENGLISH:	Advanced IELTS 7.5 (May 2014)	CHINESE:	Basic Knowledge
		GERMAN:	Basic Knowledge

COMPUTER SKILLS

OS: Mac OS X, Linux (Ubuntu), Windows
Languages: MatLab, Python (Pandas, iGraph, Keras, scikit-learn, seaborn), \LaTeX , R, SQL
Other: Office (Excel, Word, Power Point), iWork (Pages, Number, Keynote)

MY RESEARCH ACTIVITY IN A NUTSHELL

Working Papers

E. Letizia, P. Barucca, & F. Lillo (2016). Resolution of ranking hierarchies in directed networks. arXiv preprint arXiv:1608.06135
E. Letizia, & F. Lillo (2017). Corporate payments networks and credit risk rating. arXiv preprint arXiv:1711.07677
E. Letizia, & F. Lillo. Beyond the resolution limit in hierarchy detection

Where my work featured

Academic events: BigData Finance Conference; XLI AMASES Annual Meeting; Data Science Summer School @ École Polytechnique; Net-Sci 2017; XVIII Workshop on Quantitative Finance; Net-Sci X 2017; Net-2016; 5th International Workshop on Complex Networks and their Applications; Lipari Summer School on Complex networks.

Companies: Cerved Group, Unicredit, Internet Festival in Pisa

Training

Data Science Summer School @ École Polytechnique, BigDataFinance Winter School on Complex Financial Networks, Python for Computational Science, Eight European summer school in financial mathematics, ARPM bootcamp

Other

Referee for the journal *JSTAT*, co-supervisor of MSc thesis, co-organiser and chair of session at XLI AMASES

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