Alessio Catanzaro

Curriculum Vitae

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Education

2020–Now	**PhD student in Systems Science: Economics, Networks and Business Analytics**, *IMT School for Advanced Studies*, Lucca, Italy.
	Advisor: prof. Diego Garlaschelli
	Advanced Methods for Complex Systems, Advanced Topics in Network Theory: Dynamical Models Brain networks, Algebraic and Topological Concepts, Stochastic Processes, Socio-Economic Networks, Game Theory, Microeconomics, Analytics in Economics and Management, Econometrics
2014–2020	**Collegio Superiore Alumnus**, *Collegio Superiore dell'Alma Mater Studiorum*, Bologna, Italy.
	Academic excellence centre based on interdisciplinary teaching. Students are offered free lodging, exemptions from university fees, an allowance, a personal tutor among professors of the university and complimentary didactic activities. Admission is strictly based on merit.
2017–2020	**Master Degree in Theoretical Physics**, *University of Bologna*, Bologna, Italy.
	Score: 110/110 cum laude.
	Thesis: Random Matrix Theory and Renormalization Group: Spectral Theory for Network Ensembles.
	Theoretical Physics curriculum, covering subjects of QFT, Statistical Mechanics, Complex Systems Physics, Dynamical Systems, Differential Geometry.
2014–2017	**Bachelor Degree in Physics**, *University of Bologna*, Bologna, Italy.
	Score: 110/110 cum laude.
	Thesis: Spectral properties of random matrices: an application to random walks.
	Algebra, Calculus, Chemistry, Thermodynamics, Mathematical Methods, Classical and Quantum Mechanics, Electromagnetism, Earth Physics, Relativity, Physics of Matter.
2009-2014	**International Scientific High school Diploma**, *Liceo Ginnasio Luigi Galvani*, Bologna, Italy, Score:100/100.
	Italian, English, French, Latin, Mathematics, Physics, Chemistry, Biology, History, Philosophy, Informatics.
2014	**International General Certificate of Secondary Education**, *University of Cambridge, Cambridge, UK*.
	Physics, Mathematics, Biology, Geography, Arts and Photography, English, French.

Work Experience

2022	**Technological Tutor**, *IMT School*, Lucca.
	Tech support for lectures and conferences.
2018	**Tutor**, *Istituto Studi Superiori - Istitute for Advanced Studies*, Bologna.
	Promotion activities, support for ISS admission procedures, didactic support.
2013	**Internship**, *CINECA*, Bologna.
	Involvement in the OpenPortico augmented reality project for the UNESCO candidature of Bologna's porticoes.

Teaching Experience

2022	**Networkx Workshop**, *IMT School, Lucca*, Grad School mini-course on network analysis and reconstruction with Networkx Python library.
2022	**Teaching Assistant**, *First SIFS Summer School*, Teaching assistant in the course Statistical Physycs of Networks.

Computer skills

C++, Python, Labview, Stata, LaTeX, Office suite, Videomaking with Final Cut Pro.

Given Talks

2022 "Insights into Spectral Properties of Networks from Infinitesimal Renormalization Scheme" - J.T. Schwartz International School for Scientific Research

Organizational and Managerial Skills

2016–2017 Member of the Collegio Scientifico of Collegio Superiore dell'Università di Bologna - Students' Body Representative.

Languages

Italian	**Mothertongue**	
English	**C2 level**	*CAE grade A*
French	**B2 level**	*DELF B2*

Awards

2015 Honorable Mention from Liceo Ginnasio Luigi Galvani

2014 Label of Excellence for Plurilingual, European and International competences from Ministero dell'istruzione, dell'Università e della Ricerca

2014 Third place in the National History Olympics.

Miscellaneous interests

- Traveller
- Debating
- Sailing

- Tennis player (amateur level)
- Eager reader