

MAURO FACCIN

Curriculum Vitæ

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<https://maurofaccin.github.io>

ACTUAL POSITION

- **BigData Group and ICTEAM Institute at U.C. Louvain**
Interests/Research line
 - Dynamics on and of complex networks
 - Mutual influence of topology and kinetics
 - Markovian and non-Markovian dynamics
 - Community and block detection

PROFESSIONAL EXPERIENCE

2015 - today	PostDoc Université Catholique de Louvain (ICTEAM)	Louvain la Neuve, Belgium
2011 - 2015	PostDoc ISI Foundation	Torino, Italy
2006 - 2011	PhD Bifi Institute	Zaragoza, Spain

FELLOWSHIPS

2015 MOVE-IN Louvain Fellowship (with support of Marie Curie Actions)

MEMBERSHIP

2015 - today	Network Science Society Member
2014 - today	Complex Systems Society Member
2013 - today	Frontiers in Quantum Computing Review Editor

COMMITTEES

2 Jun 2014	Quantum Frontiers for Network Science Organizing committee	NetSci 2014, Berkeley, California
21 Sep 2016	Coarse-graining of Complex Systems Organizing committee	CCS2016, Amsterdam, Netherlands
30 Nov 2016	Complex Networks 2016 Program committee	Milan, Italy
15 Dec 2016	BeNet 2016 Organizing committee	Louvain-la-Neuve, Belgium
29 Nov 2017	Complex Networks 2017 Program Committee	Lyon, France

REVIEWER

- Natural Computing
- PRE
- Applied Network Science

- Journal of Complex Networks

TEACHING

2015-2017	LINMA2111 Algorithms and Complexity Université Catholique de Louvain	Assistant Professor
2005	Physics and Math at primary school NEST	Hetauda, Nepal
2004	guide in Science Museum Organizer: INFN	Padova, Italy

EDUCATION

2011	PhD in Physics supervisor: Pierpaolo Bruscolini	University of Zaragoza
2007	Master in Physics and Technology supervisor: Pierpaolo Bruscolini	University of Zaragoza
2005	MSc in Physics supervisor: Enzo Orlandini	University of Padova

PUBLICATIONS

- **Complex Networks: from Classical to Quantum – preprint** arXiv:1702.08459
J. Biamonte, M. Faccin, M. De Domenico
- **Chiral Quantum Walks** Phys. Rev. A 93, 042302
D. L. Lu, J. D. Biamonte, J. Li, H. Li, T. H. Johnson, V. Bergholm, M. Faccin, Z. Zimborás, R. Laflamme, J. Baugh, and S. Lloyd
- **Mapping the topography of a protein energy landscape** J. Am. Chem. Soc., 2015, 137 (46), pp 14610–14625
R. D. Hutton, J. Wilkinson, M. Faccin, E. M. Sivertsson, A. Pelizzola, A. R. Lowe, P. Bruscolini, L. S. Itzhaki
- **Community Detection in Quantum Complex Networks** Phys. Rev. X 4 (4 2014), p. 041012
M. Faccin, P. Migdał, T. H. Johnson, V. Bergholm, and J. D. Biamonte
- **Degree Distribution in Quantum Walks on Complex Networks** Phys. Rev. X 3 (4 2013), p. 041007
M. Faccin, T. Johnson, J. Biamonte, S. Kais, and P. Migdał
- **Quantum Transport Enhancement by Time-Reversal Symmetry Breaking** Sci. Rep. 3 (2013). Ed. by NPG, p. 2361
Z. Zimboras, M. Faccin, Z. Kadar, J. Whitfield, B. Lanyon, and J. Biamonte
- **MS/MS Spectra Interpretation as a Statistical-Mechanics Problem** Analytical Chemistry 85.10 (2013), pp. 4884–4892
M. Faccin and P. Bruscolini
- **Ground-state spin logic** Europhysics Letters 99.5 (2012), p. 57004
J. D. Whitfield, M. Faccin, and J. D. Biamonte
- **Analysis of the equilibrium and kinetics of the ankyrin repeat protein myotrophin** The Journal of Chemical Physics 134.7, 075102 (2011), p. 075102
M. Faccin, P. Bruscolini, and A. Pelizzola

CONFERENCES (ORAL CONTRIBUTIONS)

21-24 Mar 2017	Community detection in networks with non-Markovian dynamics ComplexNet 2017	Dubrovnik, Croatia
30 Nov-2 Dec 2016	Behind Communities: Dynamics Define Modules ComplexNetworks 2016	Milan, Italy
19-22 Sep 2016	Beyond Communities: Dynamical Markov Modules CCS 2016	Amsterdam, Netherlands
May 30-June 3 2016	Mesoscopic Structure And Diffusion Process Memory NetSci 2016	Seoul, Korea

10-15 Jan 2015	Mesoscopic Structures and Diffusion Process Memory	Wrocław, Poland
	NetSci-X 2016	
2-6 Jun 2015	Structural controllability of EEG temporal causal networks	Zaragoza, Spain
	NetSci 2015	
22-26 Sep 2014	Quantum Approaches to Community Detection	Lucca, Italy
	ECCS 2014	
12-14 Mar 2014	Community detection on quantum systems	Bologna, Italy
	CompleNet 2014	
22-24 Jan 2014	Community Detection on Quantum Systems	Zaragoza, Spain
	BIFI2014	
24-26 May 2013	Degree distribution in quantum complex networks	Waterloo, Canada
	IQC workshop on quantum computation and complex networks	
6-8 Nov 2012	Ground state spin logic	Torino, Italy
	Tensor Network States and Algebraic Geometry Workshop	
2-4 Feb 2011	Equilibrium and kinetics of the ankyrin repeat protein Myotrophin through a simple statistical mechanical model	Zaragoza, Spain
	V BIFI National Conference	
5-7 Feb 2009	Bayesian Characterization of Protein Tandem Mass Spectra	Zaragoza, Spain
	IV BIFI National Conference	
8-9 May 2008	Noise description in MSMS mass spectrometry, looking for a de novo sequencing algorithm	San Sebastian, Spain
	VI Jornadas Aragonesas de Estabilidad y Plegamiento de Proteínas	

CONFERENCES (POSTER CONTRIBUTIONS)

23-25 Mar 2016	Memory and Mesoscopic Structures in Diffusion Processes	Dijon, France
	CompleNet 2016	
7-10 Jul 2010	Folding Pathways Characterization for Ankyrin Repeat Protein Myotrophin	Zaragoza, Spain
	IV Spanish Portuguese Biophysical Congress	
2-6 Jun 2008	Statistical characterization of fragment ions in MSMS mass spectrometry	Sitges, Spain
	XXI Sitges Conference on Statistical Mechanics: Statistical Mechanics of Molecular Biophysics	

COMPUTER SKILLS

Coding	Python, C, C++, Matlab, Fortran
Shell	Bash, iPython/Jupyter
Versioning	GIT, Subversion, Mercurial
Plotting	Gnuplot, Matplotlib, PGFPlots(latex)
Typesetting	Latex, LibreOffice, MSOffice, Markdown
Imaging	Gimp (Raster), Inkscape (Vectorial), Rawtherapee (RAW)
Web	HTML5, CSS/SCSS, static site generators, Wordpress

LANGUAGES

Italian	Mother tongue
English	Fluent
Spanish	Fluent
French	Fair

Mauro Faccin