

MAURO FACCIN

Curriculum Vitæ

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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

TEACHING

2016-2017	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

- 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)

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 NetSci-X 2016	Wrocław, Poland
2-6 Jun 2015	Structural controllability of EEG temporal causal networks NetSci 2015	Zaragoza, Spain
22-26 Sep 2014	Quantum Approaches to Community Detection ECCS 2014	Lucca, Italy
12-14 Mar 2014	Community detection on quantum systems CompleNet 2014	Bologna, Italy
22-24 Jan 2014	Community Detection on Quantum Systems BIFI2014	Zaragoza, Spain
24-26 May 2013	Degree distribution in quantum complex networks IQC workshop on quantum computation and complex networks	Waterloo, Canada
6-8 Nov 2012	Ground state spin logic Tensor Network States and Algebraic Geometry Workshop	Torino, Italy

- 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