

MAURO FACCIN

Curriculum Vitæ

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<http://maurofaccin.bitbucket.org>

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
Richard D Hutton, James Wilkinson, Mauro Faccin, Elin M Sivertsson, Alessandro Pelizzola, Alan R Lowe, Pierpaolo Bruscolini, Laura 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