

Curriculum Vitae

João Gama Oliveira

January, 2012

CONTACT INFORMATION	Departamento de Física Universidade de Aveiro Campus Universitário de Santiago 3810-193 Aveiro Portugal	<i>Phone:</i> (+351) 234-370-298 <i>Fax:</i> (+351) 234-378-197 <i>E-mail:</i> jgo@ua.pt <i>Web:</i> http://sweet.ua.pt/~a29583
NATIONALITY	Portuguese	
EDUCATION	University of Aveiro , Aveiro, Portugal Ph.D. in Physics (May 2008) <ul style="list-style-type: none">• Thesis: “<i>Study of dynamical properties of complex networks</i>”.• Advisor: Prof. José Fernando F. Mendes• Co-advisor: Prof. Albert-László Barabási University of Porto , Porto, Portugal Degree of licenciante in Physics, Department of Physics of the Faculty of Science, July 2002. <ul style="list-style-type: none">• Final classification: 17/20.• Last year thesis: “<i>Roughness and avalanches in models of interfaces</i>”.	
EMPLOYMENT HISTORY	Invited Assistant Professor, University of Porto, Portugal Post-Doc Researcher, University of Aveiro, Portugal Researcher (‘recibos verdes’), University of Aveiro, Portugal Research Visitor, University of Notre Dame, IN, USA Teaching assistant, University of Aveiro, Portugal Research Visitor, University of Notre Dame, IN, USA Research Visitor, University of Notre Dame, IN, USA Teaching assistant, University of Aveiro, Portugal Teaching assistant, University of Porto, Portugal	Since September 2009 October 2008 to April 2009 Jan. 2008 to Oct. 2008 September 2006 to March 2007 September 2005 to July 2006 January to July 2005 March to August 2004 February 2003 to February 2004 February 2002 to January 2003
AWARDS AND GRANTS	Grant of the University of Aveiro Calouste Gulbenkian Foundation Research Stimulus award Grant of the Portuguese Science and Technology Foundation Grant of the University of Aveiro Grant of the Center of Physics of Porto	Oct. 2008 to Apr. 2009 2005 Dec. 2003 to Dec. 2007 March to December 2003 February to July 2002

TEACHING
EXPERIENCE

Invited Assistant Professor

University of Porto, courses taught:

- Electromagnetism, Fall 2009, Fall 2010, Fall 2011.
- Physics (1st year of Electrical Engineering), Spring 2010, Spring 2011.
- Physics (2nd year of Civil Engineering), Spring 2010, Spring 2011.

Teaching Assistant

University of Aveiro, courses taught:

- Mechanics, Spring 2006.
- Thermodynamics, Fall 2005.
- Electricity and Magnetism, Fall 2003.
- Elements of Solid State Physics, Spring 2003.

University of Porto, courses taught:

- Electricity, Fall 2002.
- Experimental Physics II, Spring 2002.
- Physics II, Spring 2002.

PUBLICATIONS

Books

Science of complex networks: From Biology to the Internet and WWW, Editors: J. F. F. Mendes, S. N. Dorogovtsev, A. Povolotsky, F. Abreu & J. G. Oliveira, AIP Conference Proceedings 776, June 2005.

Journal Articles

J. G. Oliveira & A. Vázquez, “*Impact of interactions on human dynamics*”, *Physica A* **388**, 187 (2009).

J. A. Almendral, J. G. Oliveira, L. López, M. A. F. Sanjuán & J. F. F. Mendes, “*The network of scientific collaborations within the European framework programme*”, *Physica A* **384**, 675 (2007).

J. A. Almendral, J. G. Oliveira, L. López, M. A. F. Sanjuán & J. F. F. Mendes, “*The interplay of universities and industry through the FP5 network*”, *New J. Phys.* **9** (2007) 183.

S. N. Dorogovtsev, J. F. F. Mendes & J. G. Oliveira, “*Degree-dependent intervertex separation in complex networks*”, *Phys. Rev. E* **73**, 056122 (2006).

S. N. Dorogovtsev, J. F. F. Mendes & J. G. Oliveira, “*Frequency of occurrence of numbers in the World Wide Web*” *Physica A* **360**, 548 (2006).

A. Vázquez, J. G. Oliveira, Z. Dezső, K.-I. Goh, I. Kondor & A.-L. Barabási, “*Modeling bursts and heavy tails in human dynamics*”, *Phys. Rev. E* **73**, 036127 (2006).

J. G. Oliveira & A.-L. Barabási, “*Correspondence patterns - Mechanisms and models of human dynamics - Reply*”, *Nature* **441**, E5-E6 (2006).

J. G. Oliveira & A.-L. Barabási, “*Human dynamics: Darwin and Einstein correspondence patterns*”, *Nature* **437**, 1251 (2005).

A. Vázquez, J. G. Oliveira & A.-L. Barabási, “*The inhomogeneous evolution of subgraphs and cycles in complex networks*”, *Phys. Rev. E* **71**, 025103(R) (2005).

J. G. Oliveira, J. F. F. Mendes & G. Tripathy, “*Roughness of sandpile surfaces*”, *Phys. Rev. E* **69**, 031105 (2004).

SERVED AS REVIEWER Phys. Lett. A, Phys. Rev. E, Phys. Rev. Lett. (joint report), J. Phys. A, Physica A

CONFERENCES ORGANIZED Member of the organizing committee, “*CNET 2004 – Science of Complex Networks: from Biology to the Internet and WWW*”, University of Aveiro, Aveiro, Portugal, August 29 – September 2, 2004.

INVITED TALKS “*Modeling the dynamics of human behavior using queuing theory*”, Center of Mathematics, University of Trás-os-Montes e Alto Douro, Vila Real, Portugal, January 18, 2012.

“*Network Theory and Models of Human Dynamics*”, Institute of Molecular Pathology and Immunology at the University of Porto, IPATIMUP, Portugal, May 20, 2009.

“*Models of human dynamics*”, Department of Physics, Faculty of Science, University of Porto, Portugal, July 4, 2008.

“*Modeling human dynamics*”, Institute for Advanced Study, Princeton, New Jersey, USA, March 9, 2007.

“*Patterns of complexity: from the correspondence of Darwin and Einstein to the occurrence of numbers in the world wide web*”, JOIN 2006, University of Minho, Braga, Portugal, April 5, 2006.

“*Patterns of complexity: from the correspondence of Darwin and Einstein to the occurrence of numbers in the world wide web*”, Calouste Gulbenkian Foundation, Lisbon, Portugal, February 1, 2006.

CONTRIBUTED TALKS AND POSTERS NetSci 2009, International Workshop and Conference on Network Science, Venice, Italy, June 29 – July 3, 2009, “*Impact of interactions on human dynamics*” (poster).

DYSONET meeting, Palermo, Italy, November 25-27, 2007, “*Impact of interactions on human dynamics*” (talk).

STATPHYS 23, IUPAP 23rd International Conference on Statistical Physics, July 9 – 13, 2007, Genoa, Italy, “*Critical phenomena and finite-size effects in growing networks*” (talk, presented by S. N. Dorogovtsev).

STATPHYS 23, IUPAP 23rd International Conference on Statistical Physics, July 9 – 13, 2007, Genoa, Italy, “*Modeling human dynamics*” (poster).

Complex Networks: From Biology to Information Technology (Statphys 23 Satellite), July 2 – 6, 2007, Pula (Cagliari), Italy, “*Critical phenomena and finite-size effects in evolving networks*” (talk, presented by S. N. Dorogovtsev).

Complex Networks: From Biology to Information Technology (Statphys 23 Satellite), July 2 – 6, 2007, Pula (Cagliari), Italy, “*Modeling human dynamics*” (talk).

Department of Physics, University of Aveiro, Portugal, May 10, 2007, “*Modeling human dynamics: A model of society?*” (talk).

Center for Complex Network Research, University of Notre Dame, IN, USA, October 9, 2006, “*Introduction to collaborative filtering recommendations*” (talk).

Center for Complex Network Research, University of Notre Dame, IN, USA, September 22, 2006, “*Human dynamics: Darwin and Einstein correspondence patterns*” (talk).

DYSONET meeting, Department of Sociology, University of Stockholm, Sweden, June 6, 2006, “*Epidemics and human dynamics in the network of Swedish hospitals*” (talk).

Department of Physics, University of Aveiro, Portugal, January 27, 2006, “*How to generate a scale-free network from an Erdős-Rényi random graph*” (talk).

News, Expectations and Trends in Statistical Physics, August 13 – 17, 2005, Kolymbari, Greece, “*Frequency of occurrence of numbers in the World Wide Web*” (poster).

Center for Complex Network Research, University of Notre Dame, IN, USA, March 17, 2005, “*Cobham’s model of a priority queue*” (talk).

STATPHYS 22, 22nd International Conference on Statistical Physics, July 4 – 9, 2004, Bangalore, India, “*Roughness of sandpile surfaces*” (poster, presented by G. Tripathy).

Department of Physics, University of Notre Dame, IN, USA, March 19, 2004, “*Cycles in a deterministic network model*” (talk).

Networks: Structure, Dynamics and Function, May 12 – 16, 2003, Santa Fe, New Mexico, USA, “*Roughness of sandpile surfaces*” (poster).

Department of Physics, University of Porto, September 20, 2001, Porto, Portugal, “*Roughness and avalanches in models of interfaces*” (talk).

CONFERENCE
PARTICIPATION

“*NetSci 2009, International Workshop and Conference on Network Science*”, June 29 – July 3, 2009, Venice, Italy.

“*CNET 2007 – Workshop on Complex Networks*”, December 3 – 5, 2007, Amares, Braga, Portugal.

“*STATPHYS 23, IUPAP 23rd International Conference on Statistical Physics*”, July 9 – 13, 2007, Genoa, Italy.

“*Complex Networks: From Biology to Information Technology*” (Statphys 23 Satellite), July 2 – 6, 2007, Pula (Cagliari), Italy.

“*Jornadas de Informática 2006*”, invited speaker, April 5 – 7, 2006, Department of Informatics, University of Minho, Braga, Portugal.

“*News, Expectations and Trends in Statistical Physics*”, August 13 – 17, 2005, Kolymbari, Greece.

“*CNET 2004 – Science of Complex Networks: from Biology to the Internet and WWW*”, August 29 – September 2, 2004, University of Aveiro, Aveiro, Portugal.

“*EXYSTENCE Thematic Institute on Complex Systems – Networks and Risks*”, May 31 – July 6, 2004, Budapest, Hungary.

“*Networks: Structure, Dynamics and Function*”, May 12 – 16, 2003, Santa Fe, New Mexico, USA.

VISITS TO
RESEARCH
CENTERS

The Simons Center for Systems Biology, Institute for Advanced Study, Princeton, NJ, USA, March 5–13, 2007.

Department of Physics and Center for Complex Networks Research, University of Notre Dame, IN, USA, September 3, 2006 – March 15, 2007.

Institute of Physics, São Carlos, University of São Paulo, Brazil, July 1–13, 2006.

Department of Sociology, University of Stockholm, Sweden, June 5–7, 2006.

Department of Mathematics, Applied Physics and Nature Sciences, Rey Juan Carlos University, Madrid, Spain, December 19–23, 2005.

Department of Physics and Center for Complex Networks Research, University of Notre Dame, IN, USA, January 16 – July 15, 2005.

Department of Mathematics, Applied Physics and Nature Sciences, Rey Juan Carlos University, Madrid, Spain, November 29 – December 3, 2004.

Department of Physics and Center for Complex Networks Research, University of Notre Dame, IN, USA, February 16 – August 15, 2004.

Department of Mathematics, Applied Physics and Nature Sciences, Rey Juan Carlos University, Madrid, Spain, July 14–25, 2003.

COMPUTER EXPERIENCE

Operating systems: Unix/Linux, Apple Mac OS X, Microsoft Windows.

Programming languages: C, Perl, Fortran, GNU Octave, MATLAB, Unix shell scripting, HTML

Applications: L^AT_EX, MATHEMATICA, Apple Keynote, Apple Pages, Microsoft Office, Xmgrace, Xfig, Emacs, Vi, Origin, Pajek