

Current position

Postdoctoral Research Scholar
April 2017 — Present
Department of Condensed Matter Physics,
Universitat de Barcelona & UBICS (UB Institute of
Complex Systems).
Principal Investigator: Prof. Albert Díaz-Guilera.
Funded by the James. S. McDonnell Foundation
Postdoctoral Fellowship.

Previous positions

Postdoctoral Research Scholar
March 2016 — March 2017
Department of Mathematics, University of North
Carolina at Chapel Hill.
Principal Investigator: Prof. Peter Mucha.
Funded by the James. S. McDonnell Foundation
Postdoctoral Fellowship.

Education

Doctor of Philosophy in Computer Science
2012 — 2016
PhD Advisors: Prof. Alex Arenas & Prof. Sergio Gómez
Universitat Rovira i Virgili, Tarragona, Catalunya.

Master of Science in Artificial Intelligence
2010 — 2012
Universitat Politècnica de Catalunya, Barcelona,
Catalunya.

Bachelor on Computer Engineering
2006 — 2010
Universitat Rovira i Virgili, Tarragona, Catalunya.

Honors and awards

Premi DONATIC Revelació (2016)
Award for women in Information and
Communication Technologies.
Awarded by: Tertulia Digital, SmartCAT and
La Generalitat de Catalunya.

Postdoctoral Fellowship Award for Studying Complex
Systems (2015)
Awarded by: James S. McDonnell Foundation.

Best Master Thesis (2012)
Title: *Exploratory Data Analysis Using Network-Based
Techniques*. Awarded by: Universitat Rovira i Virgili,
Tarragona, Catalunya.

Best Computer Engineering Student (2010)
Awarded by: Universitat Rovira i Virgili, Tarragona,
Catalunya.

Award for Best Graduation Project (2010)
Title: *Data Clustering Based on Community Detection
in Complex Networks*. Awarded by: Universitat Rovira
i Virgili, Tarragona, Catalunya.

Caixa Manresa University Grant (2006)
Grant for students with the best grades in the
Undergraduate Admission Test in Catalonia.
Awarded by: Caixa Manresa.

Scientific publications

Epidemic Spreading in Localized Environments with Recurrent Mobility Patterns

C. Granell and P. J. Mucha.

Phys. Rev. E 97, 052302 (2018).

Case studies in network community detection

S. Shai, N. Stanley, C. Granell, D. Taylor and P. J. Mucha.

Arxiv preprint (2017).

Detection of timescales in evolving complex systems

R. K. Darst, C. Granell, A. Arenas, S. Gómez, J. Saramäki, and S. Fortunato.

Scientific Reports, 6, art. no. 39713 (2016).

The physics of spreading processes in multilayer networks

M. De Domenico, C. Granell, M. A. Porter and A. Arenas.

Nature Physics 12, 901–906 (2016).

Information transfer in community structured multiplex networks

A. Solé-Ribalta, C. Granell, S. Gómez and A. Arenas.

Frontiers in Physics, 3:61 (2015)

A benchmark model to assess community structure in evolving networks

C. Granell, R. K. Darst, A. Arenas, S. Fortunato and S. Gómez.

Physical Review E, 92, 012805 (2015)

Emergence of assortative mixing between clusters of cultured neurons

S. Teller, C. Granell, M. De Domenico, J. Soriano, S. Gómez and A. Arenas.

PLOS Computational Biology 10(9): e1003796 (2014)

Competing spreading processes on multiplex networks: awareness and epidemics

C. Granell, S. Gómez and A. Arenas.

Physical Review E, 90, 012808 (2014)

Dynamical interplay between awareness and epidemic spreading in multiplex networks

C. Granell, S. Gómez and A. Arenas.

Physical Review Letters, 111, 128701 (2013).

Structural patterns in complex systems using multidendrograms

S. Gómez, A. Fernandez, C. Granell and A. Arenas.

Entropy, 15, 5464-5474 (2013)

Hierarchical multiresolution method to overcome the resolution limit in complex networks

C. Granell, S. Gómez and A. Arenas.

International Journal of Bifurcation and Chaos, 22, 1250171 (2012)

Unsupervised clustering analysis: A multiscale complex networks approach

C. Granell, S. Gómez and A. Arenas.

International Journal of Bifurcation and Chaos, 22, 1230023 (2012)

Mesoscopic analysis of networks: applications to exploratory analysis and data clustering

C. Granell, S. Gómez and A. Arenas.

Chaos: An Interdisciplinary Journal of Nonlinear Science, 21, 016102 (2011)

Data clustering using community detection

C. Granell, S. Gómez and A. Arenas.

International Journal of complex systems in Science, 1, 21-24 (2011)

Oral contributions

Invited Oral Presentation at the NetSci 2017 Satellite ISODS III.

Satellite name: *Information, Self-Organizing Dynamics and Synchronization in Networks*.

Indianapolis, IN, USA (June 2017)

Contributed Oral Presentation at NetSciX 2017 conference.
Parallel session: *Epidemics and spreading processes*.
Tel Aviv, Israel (January 2017)

Lecture at the III Mediterranean School of Complex Networks.
Title: *Epidemics on Networks*
Salina, Italy (August 2016)

Contributed Oral Presentation at SIAM Network Science Workshop.
Boston, USA (July 2016)

Oral Presentation at NetSci 2016.
Parallel session: *multiplex*.
Seoul, Korea (June 2016)

Lecture at the II Mediterranean School of Complex Networks.
Title: *Introduction to Community Detection in Complex Networks*.
Salina, Italy (June 2015)

Oral Presentation at CompleNet 2015.
Queens, NY, USA (March 2015)

Oral Presentation at the European Conference on Complex Systems (ECCS) 2014
Lucca, Italy (September 2014)

Lecture at the I Mediterranean School of Complex Networks.
Title: *Introduction to Community Detection in Complex Networks*.
Salina, Italy (June 2014)

Oral Presentation at NetSci 2014
Satellite: *Physics of multilayered interconnected networks*
Berkeley, CA, USA (May 2014)

Oral Presentation at the School on Biological Complex Networks
Natal, Brazil (July 2013)

Seminar at the Oxford Center for Industrial and Applied Mathematics
Oxford, United Kingdom (July 2012)

Oral Presentation at the conference Net-Works 2010: From theory to Applications of Complex Networked Systems.
Zaragoza, Spain (June 2010)

Posters

Poster at the III Conference of Complexitat.cat
Barcelona, Catalunya (2014)

Poster at the Network Frontier Workshop
Evanston, IL, USA (2013)

Poster at CompleNet 2013
Berlin, Germany (2013)

Poster at FISES 2012: XVIII Conference on Statistical Physics
Palma de Mallorca, Spain (2012)

Poster at the II Conference of Complexitat.cat
Barcelona, Catalunya (2012)

Poster at the European Conference on Complex Systems (ECCS) 2011
Vienna, Austria (2011)

Dissemination

Invited Lecture at the Closing Ceremony of the *URV Talent Jove 2016-2017* program.
Tarragona, July (2017)

Transiciones de fase en epidemias

C. Granell, S. Gómez and A. Arenas

Revista Española de Física, 28 (3), 49-52 (2014)

Editorial activity

Regular referee of:	Physical Review E
	Physical Review Letters
	New Journal of Physics
	PLOS One
	Physical D: Nonlinear Phenomena
	Journal of Statistical Mechanics
	Science Advances

Languages

Catalan	Native Speaker
Spanish	Native Speaker
English	Fluent
German	Intermediate

Programming skills

Ada, Java, C, Matlab, Python