

CURRICULUM VITAE
ALBERT DIAZ GUILERA
December 2016

Professional data

Current professional status and start date: Full Professor. 15/02/2011

Knowledge area: Condensed Matter Physics.

Affiliation: University of Barcelona. Departament de Física de la Matèria Condensada & Institute of Complex Systems (UBICS)

URL: <http://www.diaz-guilera.net>

Diplomas

PhD in Science (Physics) Universitat Autònoma de Barcelona, March 1987.

Thesis Director: Dr. J. M. Rubí.

Score: Apto *Cum Laude*.

Publications in Journals

I have published more than one hundred papers in international journals according to Web of Science (WOS), which have been cited 5320 times and make an h -index of 27. Most of them are publications in journals of the first quartile. Here is the list of my publications during 2001-2016 and mark with (*) the most relevant ones. In brief, I have published close to 60 articles during the last 15 years in the field of complex networks, with an average production of 4 papers per year, many of them seminal in the field. These scientific contributions have deserved a large number of citations, with a mean of more than 50 per paper.

- (*) Schieber, T.A.; Carpi, L.; Diaz-Guilera, A.; Pardalos, P.M.; Masoller, C.; Ravetti, M.G.
Quantification of networks structural dissimilarities. NATURE COMMUNICATIONS 8, 13928 (2017)
Publication in a very high impact interdisciplinary journal, as a result of a fruitful international collaboration on a very hot topic, definition of distances and an appropriate metric for network comparison. DOI
- Kouvaris, N.E.; Requejo, R.J.; Hizanidis, J.; Diaz-Guilera, A
Chimera states in a network-organized public goods game with destructive agents. CHAOS 26, 123108 (2016) DOI
- Fujiwara, Naoya; Kurths, Jurgen; Diaz-Guilera, Albert
Synchronization of mobile chaotic oscillator networks. CHAOS 26, 94824 (2016) DOI
- Requejo, R. J.; Diaz-Guilera, A.
Replicator dynamics with diffusion on multiplex networks. PHYSICAL REVIEW E 94, 22301 (2016) DOI
- Gutierrez-Roig, M.; Sagarra, O.; Oltra, A.; Palmer, J. R. B.; Bartumeus, F.; Diaz-Guilera, A.; Perello, J.
Active and reactive behaviour in human mobility: the influence of attraction points on pedestrians. ROYAL SOCIETY OPEN SCIENCE 3, UNSP 160177 (2016) DOI

- Hizanidis, Johanne; Kouvaris, Nikos E.; Zamora-Lopez, Gorka; Diaz-Guilera, Albert; Antonopoulos, Chris G.
Chimera-like States in Modular Neural Networks. SCIENTIFIC REPORTS 6, 22314 (2016) [DOI](#)
- (*) Sagarra, O.; Perez Vicente, C. J.; Diaz-Guilera, A.
Role of adjacency-matrix degeneracy in maximum-entropy-weighted network models. PHYSICAL REVIEW E 92, 52816 (2015) [DOI](#)
Here we propose a framework for applications of standard statistical mechanics tools to complex networks models, enabling to compare different models using real data.
- Sagarra, Oleguer; Szell, Michael; Santi, Paolo; Diaz-Guilera, Albert; Ratti, Carlo
Supersampling and Network Reconstruction of Urban Mobility. PLOS ONE 10, e0134508 (2015) [DOI](#)
- (*) Kouvaris, Nikos E.; Hata, Shigefumi; Diaz-Guilera, Albert
Pattern formation in multiplex networks. SCIENTIFIC REPORTS 5, 10840 (2015) [DOI](#)
A recent article with several citations, which opens new venues of research to analyze reaction-diffusion models. Among the relevant conclusions, multiplex structure facilitates the appearance of patterns in complex systems.
- Simas, Tiago; Chavez, Mario; Rodriguez, Pablo R; Diaz-Guilera, Albert
An algebraic topological method for multimodal brain networks comparisons. Frontiers in psychology 6 (2015) [DOI](#)
- Sagarra, O.; Font-Clos, F.; Perez-Vicente, C. J.; Diaz-Guilera, A.
The configuration multi-edge model: Assessing the effect of fixing node strengths on weighted network magnitudes. EPL 107, 38002 (2014) [DOI](#)
- Buzna, Lubos; Lozano, Sergi; Diaz-Guilera, Albert
How Does Network Topology Determine the Synchronization Threshold in a Network of Oscillators?. OPERATIONS RESEARCH PROCEEDINGS 2012 (2014) [DOI](#)
- Sagarra, O.; Perez Vicente, C. J.; Diaz-Guilera, A.
Statistical mechanics of multiedge networks. PHYSICAL REVIEW E 88, 62806 (2013) [DOI](#)
- Sole-Ribalta, A.; De Domenico, M.; Kouvaris, N. E.; Diaz-Guilera, A.; Gomez, S.; Arenas, A.
Spectral properties of the Laplacian of multiplex networks. PHYSICAL REVIEW E 88, 32807 (2013) [DOI](#)
- (*) Nicosia, Vincenzo; Valencia, Miguel; Chavez, Mario; Diaz-Guilera, Albert; Latora, Vito
Remote Synchronization Reveals Network Symmetries and Functional Modules. PHYSICAL REVIEW LETTERS 110, 174102 (2013) [DOI](#)
This is a seminal work introducing for the first time the concept of "remote synchronization". This is a novel exciting topic that has received an important number of citations in the last years.
- Prignano, L.; Sagarra, O.; Diaz-Guilera, A.
Tuning Synchronization of Integrate-and-Fire Oscillators through Mobility. PHYSICAL REVIEW LETTERS 110, 114101 (2013) [DOI](#)
- (*) Gomez, S.; Diaz-Guilera, A.; Gomez-Gardenes, J.; Perez-Vicente, C. J.; Moreno, Y.; Arenas, A.
Diffusion Dynamics on Multiplex Networks. PHYSICAL REVIEW LETTERS 110, 28701 (2013) [DOI](#)

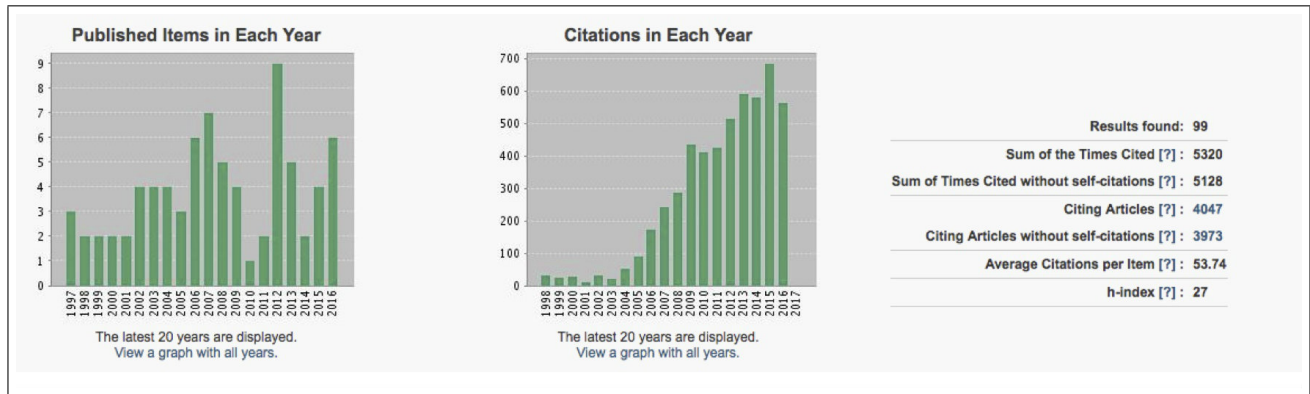
Another seminal article dealing with a rigorous analysis of the topological and dynamic properties of multiplex networks. For the first time, it relates spectral properties of single layers to those of multiplex constructions.

- Prignano, Luce; Moreno, Yamir; Diaz-Guilera, Albert
Exploring complex networks by means of adaptive walkers. PHYSICAL REVIEW E 86, 66116 (2012) [DOI](#)
- San Miguel, M.; Johnson, J. H.; Kertesz, J.; Kaski, K.; Diaz-Guilera, A.; MacKay, R. S.; Loreto, V.; Erdi, P.; Helbing, D.
Challenges in complex systems science. EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS 214 (2012) [DOI](#)
- Erola, Pau; Diaz-Guilera, Albert; Gomez, Sergio; Arenas, Alex
Modeling International Crisis Synchronization In The World Trade Web. NETWORKS AND HETEROGENEOUS MEDIA 7 (2012) [DOI](#)
- Lozano, S.; Buzna, L.; Diaz-Guilera, A.
Role of network topology in the synchronization of power systems. EUROPEAN PHYSICAL JOURNAL B 85, 231 (2012) [DOI](#)
- Gleiser, Pablo M.; Prignano, Luce; Perez-Vicente, Conrad J.; Diaz-Guilera, Albert
Pacemakers in a Cayley Tree of Kuramoto oscillators. INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS 22, 1250161 (2012) [DOI](#)
- Prignano, Luce; Sagarra, Oleguer; Gleiser, Pablo M.; Diaz-Guilera, Albert
Synchronization of moving integrate and fire oscillators. INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS 22, 1250179 (2012) [DOI](#)
- Prignano, Luce; Diaz-Guilera, Albert
Extracting topological features from dynamical measures in networks of Kuramoto oscillators. PHYSICAL REVIEW E 85, 36112 (2012) [DOI](#)
- Diaz-Guilera, Albert Viability and Resilience of Complex Systems: Concepts, Methods and Case Studies from Ecology and Society (Understanding Complex Systems). JASSS-THE JOURNAL OF ARTIFICIAL SOCIETIES AND SOCIAL SIMULATION 15 (2012)
- Baronchelli, Andrea; Diaz-Guilera, Albert
Consensus in networks of mobile communicating agents. PHYSICAL REVIEW E 85, 16113 (2012) [DOI](#)
- Fujiwara, Naoya; Kurths, Juergen; Diaz-Guilera, Albert
Synchronization in networks of mobile oscillators. PHYSICAL REVIEW E 83, 25101 (2011) [DOI](#)
A first article from our group focused on one of the most prominent lines of research in complex networks: evolution of time-dependent networks and intertwining of the dynamic properties of the units with the network itself. This line of work has a direct impact on how large groups of living systems can cooperate to form complex dynamical patterns across a broad range of length scales, from the macroscale - such as flocks of birds - down to the microscale - such as a suspension of cells synchronizing their genetic clocks.
- Fujiwara, Naoya; Kurths, Juergen; Diaz-Guilera, Albert
Spectral Analysis of Synchronization in Mobile Networks, NUMERICAL ANALYSIS AND APPLIED MATHEMATICS ICNAAM 2011: INTERNATIONAL CONFERENCE ON NUMERICAL ANALYSIS AND APPLIED MATHEMATICS, VOLS A-C, 1389 (2011) [DOI](#)

- Arenas, Alex; Cabrales, Antonio; Danon, Leon; Diaz-Guilera, Albert; Guimera, Roger; Vega-Redondo, Fernando
Optimal information transmission in organizations: search and congestion. *REVIEW OF ECONOMIC DESIGN* 14 (2010) [DOI](#)
- Buzna, Lubos; Lozano, Sergi; Diaz-Guilera, Albert
Synchronization in symmetric bipolar population networks. *PHYSICAL REVIEW E* 80, 66120 (2009) [DOI](#)
- Zlatic, V.; Bianconi, G.; Diaz-Guilera, A.; Garlaschelli, D.; Rao, F.; Caldarelli, G. On the rich-club effect in dense and weighted networks. *EUROPEAN PHYSICAL JOURNAL B* 67 (2009) [DOI](#)
- Diaz-Guilera, Albert; Gomez-Gardenes, Jesus; Moreno, Yamir; Nekovee, Maziar
Synchronization in Random Geometric Graphs. *INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS* 19 (2009)
- (*) Arenas, Alex; Diaz-Guilera, Albert; Kurths, Jurgen; Moreno, Yamir; Zhou, Changsong
Synchronization in complex networks. *PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS* 469 (2008) [DOI](#)
One of the best liked and cited reviews from our work, with more than a thousand citations over six years. It deals with the emergent phenomena of synchronization in a wide variety of topological patterns. Synchronization has become one of the paradigmatic examples of complex systems behavior in the last decades.
- Diaz-Guilera, A.
Dynamics towards synchronization in hierarchical networks. *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL* 41, 224007 (2008) [DOI](#)
- Danon, Leon; Arenas, Alex; Diaz-Guilera, Albert
Impact of community structure on information transfer. *PHYSICAL REVIEW E* 77, 36103 (2008) [DOI](#)
- Diaz-Guilera, Albert; Arenas, Alex
Phase Patterns of Coupled Oscillators with Application to Wireless Communication. *BIO-INSPIRED COMPUTING AND COMMUNICATION* 5151 (2008)
- Almendral, Juan A.; Diaz-Guilera, Albert
Dynamical and spectral properties of complex networks. *NEW JOURNAL OF PHYSICS* 9, 187 (2007) [DOI](#)
- Ferrer i Cancho, Ramon; Diaz-Guilera, Albert
The global minima of the communicative energy of natural communication systems. *JOURNAL OF STATISTICAL MECHANICS-THEORY AND EXPERIMENT* P06009 (2007) [DOI](#)
- Arenas, A.; Diaz-Guilera, A.
Synchronization and modularity in complex networks. *EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS* 143 (2007) [DOI](#)
- Llas, M.; Diaz-Guilera, A.; Lopez, J. M.; Gleiser, P. M.
The role of time scale separation in a nonequilibrium roughening transition. *PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS* 374 (2007) [DOI](#)
- Diaz-Guilera, Albert
Complex networks: Statics and dynamics. *ADVANCED SUMMER SCHOOL IN PHYSICS 2006: FRONTIERS IN CONTEMPORARY PHYSICS* 885 (2007)

- Diaz-Guilera, A.; Moreira, A. A.; Guzman, L.; Amaral, L. A. N.
Complex fluctuations and robustness in stylized signalling networks. JOURNAL OF STATISTICAL MECHANICS-THEORY AND EXPERIMENT P01013 (2007) [DOI](#)
- Vragovic, I.; Louis, E.; Diaz-Guilera, A.
Performance of excitable small-world networks of Bonhoeffer-van der Pol-FitzHugh-Nagumo oscillators. EUROPHYSICS LETTERS 76 (2006) [DOI](#)
- Guimera, R.; Danon, L.; Diaz-Guilera, A.; Giralt, E.; Arenas, A.
The real communication network behind the formal chart: Community structure in organizations . JOURNAL OF ECONOMIC BEHAVIOR AND ORGANIZATION 61 (2006) [DOI](#)
- Arenas, Alex; Diaz-Guilera, Albert; Perez-Vicente, Conrad J.
Synchronization processes in complex networks. PHYSICA D-NONLINEAR PHENOMENA 224 (2006) [DOI](#)
- Danon, Leon; Diaz-Guilera, Albert; Arenas, Alex
The effect of size heterogeneity on community identification in complex networks. JOURNAL OF STATISTICAL MECHANICS-THEORY AND EXPERIMENT P11010 (2006) [DOI](#)
- (*) Arenas, A; Diaz-Guilera, A; Perez-Vicente, CJ
Synchronization reveals topological scales in complex networks. PHYSICAL REVIEW LETTERS 96, 114102 (2006) [DOI](#)
The first publication in the field, with a thorough analysis of the relation between topological and temporal scales in the evolution of a population of identical oscillators towards a synchronized state. It explores a surprisingly simple analogy between eigenvalues of the Laplacian matrix of a network and the formation of synchronized communities. It is one of my most cited contributions even though it is not a review paper, with close to 400 citations.
- Serrano, MA; Boguna, M; Diaz-Guilera, A
Modeling the Internet. EUROPEAN PHYSICAL JOURNAL B 50 (2006) [DOI](#)
- Danon, L; Diaz-Guilera, A; Duch, J; Arenas, A
Comparing community structure identification. JOURNAL OF STATISTICAL MECHANICS-THEORY AND EXPERIMENT P09008 (2005) [DOI](#)
- Vragovic, I; Louis, E; Diaz-Guilera, A
Efficiency of informational transfer in regular and complex networks. PHYSICAL REVIEW E 71, 36122 (2005) [DOI](#)
- Serrano, MA; Boguna, M; Diaz-Guilera, A
Competition and adaptation in an Internet evolution model . PHYSICAL REVIEW LETTERS 94, 38701 (2005) [DOI](#)
- Amaral, LAN; Diaz-Guilera, A; Moreira, AA; Goldberger, AL; Lipsitz, LA
Emergence of complex dynamics in a simple model of signaling networks. PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA 101 (2004) [DOI](#)
- (*) Boguna, M; Pastor-Satorras, R; Diaz-Guilera, A; Arenas, A
Models of social networks based on social distance attachment . PHYSICAL REVIEW E 70, 56122 (2004) [DOI](#)
Model of social network, that has received 244 citations

- (*) Arenas, A; Danon, L; Diaz-Guilera, A; Gleiser, PM; Guimera, R
Community analysis in social networks. EUROPEAN PHYSICAL JOURNAL B 38 (2004) [DOI](#)
Community analysis of several real social networks, showing striking similarities and universal behaviors. It has over 100 citations so far.
- Arenas, A; Danon, L; Diaz-Guilera, A; Guimera, R
Local search with congestion in complex communication networks. COMPUTATIONAL SCIENCE - ICCS 2004, PT 3, PROCEEDINGS 3038 (2004)
- (*) Guimera, R; Danon, L; Diaz-Guilera, A; Giralt, F; Arenas, A
Self-similar community structure in a network of human interactions. PHYSICAL REVIEW E 68, 65103 (2003) [DOI](#)
One of our first contributions to the applied network science, where we analyzed the real network of email communications in a University community. This analysis illustrated the direct application of network analysis to real world networks, which later can be applied for analysis and optimal design of organizations. It has received more than four hundred citations
- Llas, M; Gleiser, PM; Lopez, JM; Diaz-Guilera, A
Nonequilibrium phase transition in a model for the propagation of innovations among economic agents. PHYSICAL REVIEW E 68, 66101 (2003) [DOI](#)
- Llas, M; Gleiser, PM; Diaz-Guilera, A; Perez, CJ
Optimization as a result of the interplay between dynamics and structure. PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS 326 (2003) [DOI](#)
- Arenas, A; Cabrales, A; Diaz-Guilera, A; Guimera, R; Vega-Redondo, F
Search and congestion in complex networks. STATISTICAL MECHANICS OF COMPLEX NETWORKS 625 (2003)
- (*) Guimera, R; Diaz-Guilera, A; Vega-Redondo, F; Cabrales, A; Arenas, A
Optimal network topologies for local search with congestion. PHYSICAL REVIEW LETTERS 89, 248701 (2002) [DOI](#) *Pioneering work in collaboration with renowned economists, which has received 353 citations*
- Arenas, A; Diaz-Guilera, A; Perez, CJ; Vega-Redondo, F
Self-organized criticality in evolutionary systems with local interaction. JOURNAL OF ECONOMIC DYNAMICS AND CONTROL 26, PII S0165-1889(01)00025-2 (2002) [DOI](#)
- Guardiola, X; Diaz-Guilera, A; Perez, CJ; Arenas, A; Llas, M
Modeling diffusion of innovations in a social network. PHYSICAL REVIEW E 66, 26121 (2002) [DOI](#)
- Guimera, R; Arenas, A; Diaz-Guilera, A; Giralt, F
Dynamical properties of model communication networks. PHYSICAL REVIEW E 66, 26704 (2002) [DOI](#)
- Guimera, R; Arenas, A; Diaz-Guilera, A
Communication and optimal hierarchical networks. PHYSICA A 299 (2001) [DOI](#)
- (*) Arenas, A; Diaz-Guilera, A; Guimera, R
Communication in networks with hierarchical branching. PHYSICAL REVIEW LETTERS 86 (2001) [DOI](#)
Seminal contribution to the field of complex networks, with a high number of citations (291).



Summary of journal publications, according to Web of Sciences.

Books

Chapters of books: 21 (research) + 1 (teaching)

Books: 1 (research, as editor), 4 (teaching, as author). Highlights:

- Xarxes Socials: Fonaments i Aplicacions (with A. Canals, J.L. Molina i B. Patraca) Editorial UOC, Barcelona, 2013.
- Statistical Mechanics of Complex Networks, editor. Proceedings of the Conference "Statistical Mechanics of Complex Networks", Sitges, Spain, June 2002, Springer (2003)

Supervised PhD thesis:

- Àlvaro Corral (1995). Senior researcher at Centre de Recerca Matemàtica, Bellaterra, Barcelona, SPAIN.
- Xavier Guardiola (2001). Senior data scientist at King, Barcelona.
- Roger Guimerà (2002). ICREA Professor at Universitat Rovira i Virgili, Tarragona, SPAIN.
- Mateu Llas (2004). High school teacher, Lleida
- Leon Danon (2006). Lecturer at the School of Social and Community Medicine, University of Bristol, UNITED KINGDOM.
- Luce Prignano (2012). Postdoc at Universitat de Barcelona, SPAIN.
- Oleguer Sagarra (2016). Data scientist at DRIBIA, Barcelona, SPAIN.
- Current PhD candidates under supervision: Roberta Amato, Ignacio Morer, Antoni Miranda, Gemma Rosell.

Contributions to conferences

- Scientific Committees 3 (national level) + 5 (international)
- Invited talks: 8 (national level) + 24 (international)
 - Synchronization in time dependent networks. Mediterranean school of complex networks. Salina. ITALY. 2016

- Nonlinear dynamics in multiplex networks. International Conference on Control of Complex Systems and Networks. Heringsdorf. GERMANY. 2016
- Nonlinear dynamics in multiplex networks. Perspectives in nonlinear dynamics 2016. Berlin. GERMANY. 2016
- Dynamics in multiplex networks. International School and Conference on Network Science NetSci 2016. Seoul. KOREA. 2016
- Dynamics in multiplex networks. Mathematics and Physics of Multilayer Complex Networks. Dresden. GERMANY. 2015
- Statistical physics of human mobility. Granada Seminar. La Herradura (Granada). SPAIN. 2015
- Dynamics on and of complex networks. V Gefenol Summer School. Bellaterra. SPAIN. 2015
- Spectral properties of networks. NetSci2015 (School). Zaragoza. SPAIN. 2015
- Dynamics in multiplex networks (opening keynote lecture). European Conference on Complex Systems 2014. Lucca. ITALY. 2014
- Statistical Physics and Complex Networks. XXIV Sitges Conference. Barcelona. SPAIN. 2014
- Synchronization in mobility networks. 4th Workshop on Complex Networks. Berlin. GERMANY. 2013
- New paradigms in Complex Network Science. 8th Conference on Nonlinear Systems and Dynamics. Indore. INDIA. 2013
- Network of networks. 5th International Nonlinear Conference. Barcelona. SPAIN. 2012
- Statistical characterization of contact networks of mobile users. Mathematical Physics of Complex Networks: From Graph Theory to Biological Physics. Dresden. GERMANY. 2012
- Spectral properties of complex networks. Aalto Complex Networks Factory. Aalto. FINLAND. 2012
- Xarxes neuronals: de la neurona al caos i la complexitat. 60 reunió científica de la Societat Catalana de Neuropsicologia. Barcelona. SPAIN. 2012
- Complex networks. Learning about Interacting Networks in Climate (LINC) School. Palma de Mallorca. SPAIN. 2012
- Synchronization in networks of mobile oscillators. SYNCLINE 2010: Synchronization in Complex Networks. Bad-Honneff. GERMANY. 2010
- Dynamical and spectral properties of complex networks. Dynamics and evolution of biological and social networks. Palma de Mallorca. SPAIN. 2008

Participation in competitive projects, since 2001

- Research
 - International
 - * Production and distribution of food during the Roman Empire: Economics and Political Dynamics (EPNet).
ERC-ADG.
Amount: 1.597.936,00€. Duration: 2014-2019
Principal Investigator: Jose Remesal Rodriguez. Principal Investigator of the CLabB
Team: Albert Diaz-Guilera.

- * multi-Layer Spatiotemporal Generalized Networks (LASAGNE)
FET Proactive: Dynamics of Multi-Level Complex Systems. 7IDEAS - IDEAS. 7 Framework Program.
Number of the project / contract: FP7-ICT-2011-8 318132
Amount: 317.508€. Duration: 2012-2015.
Main researcher (UB Team): Albert Diaz Guilera
- * Foundational Research on MULTIllevel comPLEX networks and systems (MULTI-PLEX)
FET Proactive: Dynamics of Multi-Level Complex Systems. 7IDEAS - IDEAS. 7 Framework Program.
Number of the project / contract: FP7-ICT-2011-8 317532
Amount: 374.955,00€. Duration: 2012-2016.
Principal Investigator (Catalan team): Alexandre Arenas Moreno
- * COevolution and Self-organization In dynamical Networks
IST-2001-33555 6th Framework European Union
Amount: 196.800,00. Duration: 2002-2005
Principal Investigator (Spanish team): Albert Diaz-Guilera

– Spanish

- * Estudio de transiciones dinámicas en redes complejas: una aproximación de red funcional multicapa, modelos y validación.
Ministerio de Economía y Competitividad
Number of the project / contract: FIS2015-71582-C2-2-P
Amount: 78.400€. Duration: 2016-2018
Main researcher: Albert Diaz Guilera
- * Migraciones Mediterráneas: análisis histórico de las transferencias sociopolíticas y culturales entre Norte y Sur
Programa Nacional de Promoción General del Conocimiento - Historia y Arte (BHA)
Ministerio de Economía y Competitividad
Number of the project / contract: EUIN2015-62506
Amount: 13.100,00€. Duration: 2015-2017
Principal Investigator: Dolores López Pérez
- * Análisis multiescala de sistemas complejos: estructura y dinámica
Ministerio de Economía y Competitividad
Number of the project / contract: FIS2012-38266-C02-02
Amount: 50.000€. Duration: 2013-2015
Principal Investigator: Albert Diaz Guilera
- * Estudio de la relación Topología-Funcionalidad en redes complejas: aspectos teóricos.
Ministerio de Ciencia e Innovación
Number of the project / contract: FIS2009-13730-C02-01
Amount: 56.000,00€. Duration: 2010-2012
Principal Investigator: Albert Diaz Guilera
- * Evolución dinámica de sistemas con interacciones no lineales definidos en redes complejas. Desarrollo teórico.
Ministerio de Educación y Ciencia
Number of the project / contract: FIS2006-13321-C02-01/
Amount: 40.000,00€. Duration: 2006-2009
Principal Investigator: Conrado Juan Perez Vicente
- * Efectos de conectividad y dinámica en redes biológicas y sociales.

Ministerio de Ciencia y Tecnología
Number of the project / contract: BFM2003-08258-C02-02
Amount: 49.200,00€. Duration: 2003-2006
Principal Investigator: Albert Diaz Guilera

– Catalan

- * Grup de Ciència de Dades de la Universitat de Barcelona (GCD@UB).
ACCIÓ. Agència de Suport a l'Empresa Catalana
Number of the project / contract: TECDTP15-1-0023
Amount: 48.750,00€. Duration: 2015-2016
Principal Investigator: Jordi Vitria Marca
- * Complexity Lab Barcelona (CLAbB).
Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR)
Number of the project / contract: 2014SGR608
Amount: 30.000,00. Duration: 2014-2016
Principal investigator: Marian Boguña Espinal
- * PHYSCOMP2.
Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR)
Number of the project / contract: 2009SGR838
Amount: 43.680,00€. Duration: 2009-2013
Principal Investigator: Alejandro Arenas Moreno
- * Grup de Física i Computació en Sistemes Complexos. Departament d'Universitats, Recerca i Societat de la Informació (Generalitat de Catalunya) DURSI
Number of the project / contract: 2005SGR00889
Amount: 42.200,00€. Duration: 2005-2009
Principal investigator: Albert Diaz Guilera

– With private companies

- * Investigación sobre las recetas del restaurante El Bulli, para poner de manifiesto su creatividad. Telefónica Investigación y Desarrollo, S.A.
Amount: 62.995€ Duration: Jan 2014 - Dec 2014
Amount: 15.750€ Duration: Oct 2013 - Dec 2013

• Teaching

– Catalan

- * Implementació del Curs d'Òptica en Java en la docència semi-presencial de l'Òptica a l'Ensenyament de Física
Departament d'Universitats, Recerca i Societat de la Informació (Generalitat de Catalunya) DURSI
Number of the project / contract: 043402926V
Amount: 8.700,00€. Duration: 2003-2005
Principal Investigator: Arturo Carnicer Gonzalez
- * Pla General d'Avaluació dels Plans d'Acció Tutorial de la Universitat de Barcelona
Departament d'Universitats, Recerca i Societat de la Informació (Generalitat de Catalunya) DURSI
Number of the project / contract: 2003MQD-00127
Amount: 6.300,00€. Duration: 2003-2004
Principal Investigator: Joan Guardia Olmos

– University of Barcelona

- * Mecànica i Ones: complements multimèdia i laboratori virtual
Universitat de Barcelona
Number of the project / contract: 10/III/MM-OI/22/DIAZ
Duration: 2001-2002
Principal Investigator: Albert Diaz Guilera

Other appointments

- (Acting) Director of the [UBICS](#), Universitat de Barcelona Institute of Complex Systems.
- President of [complexitat.CAT](#), Associació Catalana per l'Estudi dels Sistemes Complexos.
- Member of the board of [COMSOTEC](#), Asociación para el Estudio de Sistemas Complejos Sociotecnológicos.
- Thematic Network Coordinator until 2012, [ECONOSOCIOFISICA](#).
- Founder member of [IBERSINC](#).
- Member of the Steering Committee 2013-2016 of the [Complex System Society](#).
- Conference Chairman of [ECCS13](#), European Conference on Complex Systems.
- Member of [GISME](#), Grupo Interdisciplinar de reflexión y Soluciones Matemáticas para Entidades.
- Member of the board of [DATASCIENCE Barcelona](#).

Long stays in other institutions

During my career at Universitat de Barcelona, I have been awarded two sabbatical leaves, which I have used to interact with scientists of very different backgrounds, which have increased my personal interdisciplinary perspective of research:

- 2002 (3 months): Department of Mathematics, Imperial College London.
- 2002 (4 months): Harvard Medical School, Harvard University
- 2008 (2 months): Computational Social Science, ETH Zürich
- 2009 (12 months): Potsdam Institute of Climatology
- 2010 (3 months): Department of Psychology, Potsdam University