3. Name of the project: Síntesis Ecológica — Postdoctoral Fellowship JAE-Doc (JAEDOC025) Entity where project took place: Estación Biológica de Doñana (EBD-CSIC) City of entity: Seville, Spain Name principal investigator (PI, Co-PI....): Jordi Bascompte; Miguel A. Fortuna Nº of researchers: 2 Funding entity or bodies: Ministry of Economy and Competitiveness European Social Fund Start-End date: 01/09/2012 - 31/08/2015 Total amount: 82.620,72

4. Name of the project: Unifying ecological and evolutionary networks — Marie Curie International Outgoing Fellowship (IOF) Entity where project took place: Princeton University (USA) City of entity: Princeton, New Jersey, United States of America Name principal investigator (PI, Co-PI....): Miguel A. Fortuna; Simon Levin; Jordi Bascompte Nº of researchers: 3 Funding entity or bodies: European Community (International Outgoing Fellowship (IOF) Type of entity: 7th European Community Framework Programme Start-End date: 01/05/2009 - 30/04/2012 Total amount: 225.036,19

5. Name of the project: Integrando redes espaciales y genética de poblaciones: conservación de dos especies de anfibios autóctonas de Andalucia (RNM-02928) Entity where project took place: Estación Biológica de Doñana (EBD-CSIC) City of entity: Seville, Spain Name principal investigator (PI, Co-PI....): Jordi Bascompte; José A. Godoy; Peter Buston; Miguel A. Fortuna Nº of researchers: 4 Funding entity or bodies: Proyecto de Investigación de Excelencia, Junta de Andalucia Start-End date: 01/08/2008 - 01/07/2011 Total amount: 124.330,12

Instituto de Fisica Interdisciplinar y Sistemas Complejos (IFISC-CSIC)

IFISC (Institute for Cross-Disciplinary Physics and Complex Systems) is a joint research Institute of the University of the Balearic Islands (UIB) and the Spanish National Research Council (CSIC) created in 2007. IFISC has been awarded in 2018 the "Unit of Excellence María de Maeztu" distinction, entering the selective SOMMa Alliance and thus consolidating IFISC as a reference institute in the research field of complex systems. The award has been granted by the Spanish National Agency (AEI), Ministry of Science, Innovation and Universities. Emerging from a backbone transversal research line of exploratory nature on Complex Systems, Statistical and Nonlinear Physics, IFISC has 5 research lines of transfer of knowledge in the interface with other disciplines (Quantum Technologies, Information and Communication Technologies, Earth Sciences, Life Sciences and Social Sciences). These are: i) Biocomplexity, ii) Dynamics and collective phenomena of social systems, iii) Transport and Information in Quantum Systems, iv) Nonlinear Photonics, v) Nonlinear dynamics in fluids.

Dr. V.M. Eguíluz is a complex systems' scientist with an interest in interdisciplinary applications at the interface between Physics, Biology and Social Sciences. Our early studies on co-evolution networks showed the relevance of network plasticity on the emergence of cooperation, and as a generic mechanism leading to fragmentation transitions. The extensive study of the voter model on complex networks is an example of the micro-macro connection in social collective phenomena: how to link microscopic rules to macroscopic emergent phenomena. Recently we combined census data and election results to present the first model based on microscopic rules compatible with the patterns of voting. In Biology, we introduced the first large scale functional network of the brain. Our expertise on complex networks, on the one hand, and the more recent research activity on the connection between ecological-human activity-and environmental factors In connection to the current project supports his contribution to the current proposal. Current research includes the characterization and modeling of the structure-function relationship of real systems. He is Associate Editor of frontiers in Physics (since 2016) and Advances in Complex Systems (since 2007), Young Researcher Award from the Spanish Royal Physical Society (2003).

List of publications

1. GC Hays et al, Key questions in marine megafauna movement ecology, Trends in Ecology & Evolution 31 (6), 463-475 (2006).

2. F Vazquez, VM Eguíluz, M San Miguel, Generic absorbing transition in coevolution dynamics, Physical Review Letters 100, 108702 (2006).