

CURRICULUM VITAE

Emilio Hernández García

ORCID ID: 0000-0002-9568-8287

Researcher ID: B-1271-2008

Scopus Author ID: 7003938014

Google Scholar user=CjnEr_gAAAAJ

27 Noviembre 2023

Versiones permanentemente actualizadas de este currículum se pueden obtener por Internet,
en la dirección <http://ifisc.uib-csic.es/users/emilio/curri/currinormal.html>

ACTIVIDADES ANTERIORES CIENTÍFICO-PROFESIONALES:

Curso 1984-85	Becario de Colaboración en el Departamento de Física Teórica de la Universidad de Barcelona.
Enero 1987-Septiembre 1989	Becario del Plan de Formación del Personal Investigador. Departamento de Física, Universidad de las Islas Baleares.
Octubre 1989-Septiembre 1991	Ayudante de Universidad. Departamento de Física, Universidad de las Islas Baleares.
Septiembre 1990-Septiembre 1991	Becario del Subprograma de Perfeccionamiento para Doctores y Tecnólogos. Center for the Physics of Materials and Department of Physics, McGill University, Montreal, Canada.
Octubre 1991-Junio 1993	Profesor Titular Interino de Física de la Materia Condensada. Departamento de Física, Universidad de las Islas Baleares.
Junio 1993-Octubre 2001	Profesor Titular de Física de la Materia Condensada. Departamento de Física, Universidad de las Islas Baleares.
Octubre 2001-Junio 2007	Profesor de Investigación, Instituto Mediterráneo de Estudios Avanzados (IMEDEA), Departamento de Física Interdisciplinar, CSIC-Universidad de las Islas Baleares.

PARTICIPACIÓN EN PROYECTOS DE INVESTIGACIÓN

1. *Aplicación de la metodología de los procesos estocásticos al estudio de fluctuaciones y transiciones en sistemas físicos.*
Universidad de las Islas Baleares, Universidad de Barcelona, Universidad de Cantabria.
Proyecto CAICYT 361/84. 1985-1987.
Investigador principal : M. San Miguel.
2. *Cinética de transiciones de fase.*
Universidad de las Islas Baleares, Universidad de Barcelona, Temple University (Philadelphia), Rutgers University (New Jersey), Courant Institute (New York).
Comité conjunto Hispano-Norteamericano, CCB 8402 025. 1985-1987.
Investigador responsable español: J. Marro
3. Colaboración en *Dynamics of Nonlinear Optical Systems.*
Proyecto ST2J-0187-X-X(TT), CEE. 1987-1989.
Investigador responsable español: M. San Miguel.
4. *Mecánica Estadística de sistemas fuera del equilibrio: Dinámica de transiciones y otros procesos dinámicos.* Universidad de las Islas Baleares
Proyecto PB86-0534, DGICYT. 1987-1990.
Investigador principal : M. San Miguel.
5. *Transient dynamics and pattern formation.*
Universidad de las Islas Baleares, Florida State University, McGill University

- (Montreal).
 Proyecto CRG 890482, Oficina Científica de la OTAN,
 Programa *Patterns, Order, and Chaos*. 1989-1993.
 Investigador responsable español: M. San Miguel.
6. Proyecto de Investigación Conjunta Universidad de las Islas Baleares, Universidad de Cantabria, Centro Atómico Bariloche (Argentina), Universidad de Córdoba (Argentina).
 Programa de Cooperación con Iberoamérica, Ministerio de Educación y Ciencia.
 1989-1990.
 Investigador responsable español: M. San Miguel.
 7. *Complexity and Chaos in Quantum Optics*.
 Proyecto Science 89300424, CEE. 1989-1991.
 Investigador principal Universidad de las Islas Baleares: M. San Miguel.
 8. *Problemas dinámicos en la formación de estructuras espaciales en sistemas complejos*.
 Universidad de las Islas Baleares
 Proyecto PB89-0424, DGICyT. 1990-1993.
 Investigador principal : M. San Miguel.
 9. *Complexity and Chaos in Quantum Optics*.
 Proyecto Science SC1*CT90-0478, CEE. 1991-1993.
 Investigador principal Universidad de las Islas Baleares: M. San Miguel.
 10. Proyecto de Investigación Conjunta Universidad de Cantabria, Universidad de las Islas Baleares, Centro Atómico Bariloche (Argentina), Universidad de Córdoba (Argentina).
 Programa de Cooperación con Iberoamérica, Ministerio de Educación y Ciencia.
 1991-1993.
 Investigador responsable español: M. Rodríguez.
 11. *Non-Classical Light*.
 Proyecto ERB4050PL920887, Programa *Human Capital and Mobility*, CEE
 (15 instituciones participantes). 1993-1995.
 Investigador principal Universidad de las Islas Baleares: M. San Miguel.
 12. *Dinámica espacio-temporal de sistemas fuera del equilibrio*.
 Universidad de las Islas Baleares, CSIC (IEA, Baleares)
 Proyecto PB92-0046-C02-02, DGICyT. 1993-1994.
 Investigador principal Universidad de las Islas Baleares: O. Piro.
 13. *Modelización, simulación y caracterización de dispositivos para comunicaciones ópticas por fibras*.
 Universidad de las Islas Baleares, Universidad de Cantabria, CSIC (IEM, Madrid),
 Universidad Politécnica de Madrid.
 Proyecto TIC 93-0744-C04-01, CICyT. 1993-1994.
 Investigador principal Universidad de las Islas Baleares: M. San Miguel.
 14. *Gigahertz and picosecond optics in semiconductor laser devices*.
 Proyecto CHRX-CT94-0594, Programa *Human Capital and Mobility*, Unión Europea.
 (6 instituciones participantes). 1994-1996.
 Investigador principal Universidad de las Islas Baleares: M. San Miguel.
 15. *Física estadística, fenómenos no-lineales, y sus aplicaciones*.
 Universidad de las Islas Baleares.
 Proyecto PB94-1167, DGICyT. 1995-1999.
 Investigador principal : M. San Miguel.
 16. *Fluctuaciones, caos, y leyes de escala en la dinámica de sistemas no-lineales*.
 Universidad de las Islas Baleares.
 Proyecto PB94-1172, DGICyT. 1995-1997.
 Investigador principal : R. Toral.
 17. *Caracterización y Dinámica de estructuras oceanográficas coherentes físicas y biológicas*.
 Instituto Mediterráneo de Estudios Avanzados (IMEDEA), Instituto de Ciencias del Mar de Barcelona.
 Proyecto MAR95-1861, CICyT. 1996-1998.
 Investigador principal : **Emilio Hernández-García**.

18. *Quantum Structures*
European TRM Network ERB4061 PL95-1260, Unión Europea
(7 instituciones participantes). 1996-1999.
Investigador principal Universidad de las Islas Baleares: M. San Miguel.
19. *Pattern formation, defects, and fronts in nonequilibrium systems.*
Acción Integrada España-Alemania(DGICyT) HA 1995-0112. 1996.
Investigador principal Universidad de las Islas Baleares: M. San Miguel.
20. Ayuda de infraestructura IN97-0457 del Programa Nacional de Ciencia y Tecnología Marinas (CI-CYT) para la adquisición de un ordenador multiprocesador.
Instituto Mediterráneo de Estudios Avanzados (IMEDEA). 1998.
Investigador principal : **Emilio Hernández-García.**
21. *Dinàmiques no lineals d'autoorganització espai-temporal,*
Proyecto 1997XT 00003, Programa Ajut per al desenvolupament i consolidació de xarxes temàtiques de la Generalitat de Catalunya.
8 Instituciones Participantes. 1997-1999.
Investigador principal : F. Sagués.
22. *Variabilidad oceánica de alta frecuencia y sus implicaciones en el transporte de propiedades físicas y biológicas.*
Instituto Mediterráneo de Estudios Avanzados (IMEDEA), Instituto de Ciencias del Mar de Barcelona.
Proyecto MAR98-0840, CICyT. 1998-2001.
Investigador principal : **Emilio Hernández-García.**
23. *Satellite-based Ocean Forecasting (SOFT).*
Proyecto EVK3-2000-00561, Programa *Energía, Medio Ambiente, y Desarrollo Sostenible*, V Programa Marco, Unión Europea. 2001-2003.
5 instituciones participantes.
Coordinador: J. Tintoré.
24. *Quantum Imaging (QUANTIM).*
Proyecto IST-2000-26019, Programa *Information Society Technologies*, V Programa Marco, Unión Europea. 2001-2003. Investigador principal IMEDEA: M. San Miguel.
25. *Cooperación y fenómenos no lineales en sistemas complejos extendidos (CONOCE).*
Instituto Mediterráneo de Estudios Avanzados (IMEDEA).
Proyecto BFM2000-1108, Ministerio de Ciencia y Tecnología. 2001-2004.
Investigador principal : M. San Miguel.
26. Xarxa Temàtica de *Dinàmiques no lineals d'autoorganització espai-temporal,*
Proyecto 2000XT 0005. Direcció General de Recerca de la Generalitat de Catalunya.
8 instituciones participantes. 2001-2002.
Investigador principal : J.M. Sancho.
27. *Procesos de transporte, campos de velocidades y análisis de estructuras oceánicas mediante imágenes de satélite (IMAGEN).*
Instituto Mediterráneo de Estudios Avanzados (IMEDEA)
Proyecto REN2001-0802-C02-01/MAR, MCyT. 2001-2004.
Investigador principal y Coordinador: **Emilio Hernández-García.**
28. *Grupo de investigación competitivo de Física Interdisciplinar.*
Subvención del Govern Balear (2002-2005).
Investigador principal : M. San Miguel.
29. *EXYSTENCE: The Network of Excellence for Complex Systems*
Network of Excellence IST-2001-32802, Subprograma FET (Future and Emerging Technologies).
Programa Information Society Technologies, V Programa Marco, Unión Europea. 2002-2004.
Investigador principal IMEDEA: M. San Miguel.
30. *Dinàmiques no lineals d'autoorganització espaciotemporal.* Xarxa temàtica de la Generalitat de Catalunya. (2003-2004). Investigador principal IMEDEA: M. San Miguel.

31. *Dynamical systems approach to ocean transport*.
Acción Integrada España-Alemania(MCyT) HA 2003-0146. 2004-2006.
Investigador principal : **Emilio Hernández-García**.
32. *Cooperación y fenómenos no lineales en sistemas complejos extendidos 2 (CONOCE2)*.
Instituto Mediterráneo de Estudios Avanzados (IMEDEA).
Proyecto FIS2004-00953, Ministerio de Educación y Ciencia. 2004-2007.
Investigador principal : M. San Miguel.
33. *BIOSIM: Biosimulation, a new tool in drug development*. Network of Excellence (LSHB-CT-2004-005137), VI Programa Marco, Unión Europea. Prioridad 1.1 “Genomics and Biotechnology for Health” (2004-2009). Coordinador: Erik Mosekilde (Technical University of Denmark). Investigador principal IMEDEA: R. Toral.
34. *Chemical or biologically interacting substances transported by chaotic flows*.
Acción Integrada España-Italia(MEC) HI2004-0144. 2005-2006.
Investigador principal : Cristóbal López.
35. *THRESHOLDS: Thresholds of environmental sustainability* Integrated Project (Contrato 003933), VI Programa Marco, Unión Europea. Prioridad 6.3 “Global Change and Ecosystems” (2005-2008). Coordinador: C. Duarte (RRNN-IMEDEA). Responsable workpackage S2WP1 ‘Regime modelling’: **E. Hernández-García**.
36. *EUR-OCEANS: European Network of Excellence for Ocean Ecosystems analysis*. Network of Excellence (Contrato 511106-2), VI Programa Marco, Unión Europea. Prioridad 6.3 “Global Change and Ecosystems” (2005-2008). Investigador principal IMEDEA: C.M. Duarte.
37. *Dinàmiques no lineals d’autoorganització espaciotemporal* (Ref. 2004XT 00013). Xarxa temàtica del Departament d’Universitats, Recerca i Societat de la Informació de la Generalitat de Catalunya. (2005-2006). Investigador principal Jordi García-Ojalvo. Investigador principal IMEDEA: R. Toral.
38. *Grupo de investigación competitivo de Física Interdisciplinar* (Grupo de Excelencia Coherente). Subvención del Govern Balear (2006-2009).
Investigador principal : M. San Miguel.
39. *Ecological Diversity and Evolutionary Networks (EDEN)*
Proyecto 043251 (FP6-2005-NEST-Path-043251), Programa *NEST: New and Emerging Science and Technologies*, Pathfinder Call in *Complexity*, VI Programa Marco, Unión Europea. 2007-2009.
4 instituciones participantes.
Coordinador: **E. Hernández-García**.
40. *Herramientas avanzadas para el estudio de la dinámica oceánica y la gestión medio-ambiental (OCEANTECH)*
Proyecto Intramural de Frontera (PIF06-059), CSIC (2007-2008). Investigador principal Antonio M. Turiel (ICM). Investigador principal IMEDEA: Cristóbal López
41. *Transport in chaotic environmental flows*.
Acción Integrada España-Hungría(MEC) HH2006-0031. 2007-2009.
Investigador principal : Cristóbal López.
42. *Física Interdisciplinar de Sistemas Complejos (FISICOS)*.
IMEDEA/IFISC.
Proyecto FIS2007-60327 (CONSOLIDER C), Ministerio de Educación y Ciencia. 2007-2014.
Investigador principal : M. San Miguel.
43. Acción Complementaria *Ecological Diversity and Evolutionary Networks (EDEN)*
FIS2007-29087-E. Ministerio de Educación y Ciencia. 2007-2010.
Investigador principal : **E. Hernández-García**.
44. *Cooperación y Emergencia en Sistemas Complejos (A/013666/07)*.
Proyecto de Cooperación Internacional España-Argentina de la AEI, Ministerio de Asuntos Exteriores. 2007-2008.
Investigador principal España: H. Wio (IFCA).

45. Cooperación y Emergencia en Sistemas Complejos (A/018685/08).
Proyecto de Cooperación Internacional España-Argentina de la AECI, Ministerio de Asuntos Exteriores. 2008-2009.
Investigador principal España: H. Wio (IFCA).
46. Subvenció per incorporar personal investigador al sistema d'innovació de les Illes Balears.
Govern de les Illes Balears. 2009-2011.
Investigador principal : **E. Hernández-García**. Postdoc: Els Heinsalu.
47. Impact of Turbulence on Biological Dynamics (TurBiD). Proyecto Intramural Especial CSIC (200450E644).
2009-2012.
Investigador principal : **E. Hernández-García**.
48. Genética paisagística duma lagoa costeira; uma abordagem empírica e de modelação usando a erva marinha *Zostera noltii* in Ria Formosa (PTDC/MAR/099887/2008).
Fundação para a Ciência e a Tecnologia (FCT, Portugal). 2010-2013.
Investigador principal : Filipe Alberto (CCMAR, Faro).
49. *Grupo de investigación muy competitivo de Física Interdisciplinar*.
Subvención del Govern Balear (2011-2014).
Investigador principal : M. San Miguel.
50. Learning about Interacting Networks in Climate (LINC). Marie Curie Initial Training Network 289447 (PITN-GA-2011-289447). VII Programa Marco, Unión Europea. 2011-2015.
Investigador principal : Cristina Masoller (UPC). Investigador principal IFISC: **Emilio Hernández-García**.
51. *Multilayer Spatiotemporal Generalized Networks (LASAGNE)*
Proyecto FP7-ICT-2011-8 / 318132. Programa ICT-FET Proactive: Dynamics of Multi-Level Complex Systems, VII Programa Marco, Unión Europea. 2012-2015.
Coordinador: Stefan Thurner (MUWien). Investigador principal CSIC: **E. Hernández-García**.
52. *Complex Systems Physics: Information, Technology, Society and Ecology (INTENSE@COSYP)*.
Proyecto FIS2012-30634, Ministerio de Economía y Competitividad. 2013-2015.
Investigador principal : M. San Miguel.
53. *Estructuras Coherentes Lagrangianas en la dinámica del Océano (ESCOLA)*.
Proyecto CTM2012-39025-C02-01, Ministerio de Economía y Competitividad. 2013-2015.
Investigador principal : C. López.
54. *Hydrodynamic networks, population Genetics and oceanic Connectivity for the design of Marine Protected Areas in the Mediterranean Sea (HYDROGENCONNECT)*.
ENVIMED 2014 project (French MAE and Mediterranean Integrated Studies at Regional and Local Scales, MISTRALS). 2015-2016.
Investigador principal : V. Rossi.
55. *Lagrangian studies of Oceanic Processes: connectivity patterns, barriers to transport and marine populations (LAOP)*.
Proyecto CTM2015-66407-P, Ministerio de Economía y Competitividad. 2016-2018.
Investigador principal : C. López.
56. *Emergent Social, Technical and Ecological Complex Systems (EsoTECoS)*.
Proyecto FIS2015-63628-C2, Ministerio de Economía y Competitividad. 2016-2018.
Investigador principal : P. Colet.
57. *Dense particle tracking of inertial and Lagrangian particles in isotropic turbulence flows (DTrack)*.
Project for the *EuHIT facility von Karman Flow Apparatus (GTF3)* at Göttingen Turbulence Facilities (GTF), Alemania. 2016.
Investigador principal : V. Pérez-Muñuzuri.
58. *INCT (Institutos Nacionais de Ciência e Tecnologia) in Interdisciplinary and Transdisciplinary Studies in Ecology and Evolution (IN-TREE)*.
Project of the CNPq, CAPES and FAPESB, Brasil. 2016-2022.
Coordinador: Charbel Niño El-Hani (Institute of Biology, Federal University of Bahia, Brasil).

59. *Sustainability of marine coastal ecosystems in the context of global change in the Mediterranean sea: modeling and simulations (SuMaEco)*.
Proyecto RTI2018-095441-B-C22, Agencia Estatal de Investigación. 2019-2022.
Investigador principal CSIC: D. Gomila, T. Sintés.
60. Climate Advanced Forecasting of sub-seasonal Extremes (CAFE). Marie Skłodowska-Curie Innovative Training Network 813844 (H2020-MSCA-ITN-2018-813844). H2020, Unión Europea. 2019-2023.
Investigador principal : Álvaro Corral (CRM). Investigador principal CSIC: **Emilio Hernández-García**.
61. *Lagrangian transport of marine litter and microplastics in coastal waters: structures of transport and connectivity patterns (LAMARCA-SC)*.
Proyecto PID2021-123352OB-C32, Agencia Estatal de Investigación. 2022-2026.
Investigador principal : Cristóbal López, **Emilio Hernández-García**.
62. *SEagrass DIversity in the MEditerranean basin in a global change scenario: a machine learNing approach from saTellite images. (SEDIMENT)*.
Proyecto TED2021-131836B-I00, Agencia Estatal de Investigación (Transición Ecológica y Digital 2021). 2022-2024
Investigador principal : Tomàs Sintés, Manuel Matías.

PUBLICACIONES

Libros

- Z. Neufeld and E. Hernández-García
Chemical and Biological Processes in Fluid Flows: A Dynamical Systems Approach.
Imperial College Press, 30 September 2009. Copyright 2010.
ISBN: 978-1-86094-699-8 / 1-86094-699-2 (ebook: 978-1-84816-178-8 / 1-84816-178-6)
- H.A. Dijkstra, E. Hernández-García, C. Masoller, and M. Barreiro
Networks in Climate
Cambridge University Press, February 2019
ISBN: 978-1-31627-575-7

Trabajos editados

- S. Wiggins, A. M. Mancho, E. Hernández García, C. López, A. Turiel, and E. García Ladona, Editors.
Special Issue on *Nonlinear Processes in Oceanic and Atmospheric Flows*.
Nonlinear Processes in Geophysics, 2009-2010.
http://www.nonlin-processes-geophys.net/special_issue103.html
- A. M. Mancho, E. Hernández García, C. López, A. Turiel, S. Wiggins, J. Duan, and U. Feudel, Editors.
Special Issue on *Nonlinear dynamics in oceanic and atmospheric flows: theory and observations*.
Nonlinear Processes in Geophysics, 2013-2014.
http://www.nonlin-processes-geophys.net/special_issue147.html
- R.V. Donner, E. Hernández-García, E. Ser-Giacomi, Editors.
Focus Issue on *Complex network perspectives on flow systems*.
Chaos **27**, March 2017.
<http://dx.doi.org/10.1063/1.4979129>
- A. M. Mancho, E. Hernández-García, C. López, A. Turiel, S. Wiggins, and V. Pérez-Muñuzuri, Editors.
Special Issue on *Current perspectives in modelling, monitoring, and predicting geophysical fluid dynamics*.
Nonlinear Processes in Geophysics, 2017-2018.
http://www.nonlin-processes-geophys.net/special_issue860.html

Artículos de Investigación en Revistas

1. E. Hernández-García, L. Pesquera, M.A. Rodríguez, M. San Miguel
First-passage time statistics: Processes driven by Poisson noise.
Physical Review **A 36**, 5774-5781 (1987)
2. M. Aguado, E. Hernández-García, M. San Miguel
Dye-laser fluctuations: Comparison of colored loss-noise and white gain-noise models.
Physical Review **A 38**, 5670-5677 (1988)
3. E. Hernández-García, L. Pesquera, M.A. Rodríguez, M. San Miguel
Random walk in dynamically disordered chains: Poisson white noise disorder.
Journal of Statistical Physics **55**, 1027-1052 (1989)
4. M.A. Rodríguez, E. Hernández-García, L. Pesquera, M. San Miguel
Diffusion in random chains: Perturbative expansion around the effective-medium approximation.
Physical Review **B 40**, 4212-4215 (1989). Rapid Communication.
5. E. Hernández-García, M.A. Rodríguez, M. San Miguel
Dynamic disorder, renewal, and anomalous diffusion.
Physical Review **B 40**, 9056-9060 (1989).

6. E. Hernández García, M.O. Cáceres, M. San Miguel
Characterizing strong disorder by the divergence of a diffusion time.
Physical Review A **41**, 4562-4565 (1990). Rapid Communication.
7. E. Hernández-García, M.O. Cáceres
First-Passage Time statistics in disordered media.
Physical Review A **42**, 4503-4518 (1990).
8. E. Hernández-García, M.A. Rodríguez, L. Pesquera, M. San Miguel
Transport Properties for Random Walks in disordered one-dimensional media:
Perturbative calculation around the effective-medium approximation.
Physical Review B **42**, 10653-10672 (1990).
9. E. Hernández-García, R. Toral, M. San Miguel
Intensity correlation functions for the colored gain-noise model of dye lasers.
Physical Review A **42**, 6823-6830 (1990).
10. J. Viñals, E. Hernández-García, R. Toral, M. San Miguel
Numerical study of the dynamical aspects of pattern selection in the stochastic
Swift-Hohenberg equation in one dimension.
Physical Review A **44**, 1123-1133 (1991).
11. E. Hernández-García, N.B. Abraham, M. San Miguel, F. de Pasquale
Frequency selection and transient dynamics in single-mode lasers with optical
feedback.
Journal of Applied Physics **72**, 1225-1236 (1992).
12. E. Hernández-García, M. Grant
Fluctuations and overlap distributions in the dynamics of first-order phase transitions.
Journal of Physics A **25**, L1355-L1362 (1992).
13. E. Hernández-García, M. San Miguel, R. Toral, J. Viñals
Noise and pattern selection in the one-dimensional Swift-Hohenberg equation.
Physica D **61**, 159-165 (1992).
14. E. Hernández-García, T. Ala-Nissila, M. Grant
Interface roughening with a time-varying external driving force.
Europhysics Letters **21**, 401-406 (1993).
15. A. Amengual, E. Hernández-García, M. San Miguel
Ordering and finite-size effects in the dynamics of transient patterns.
Physical Review E **47**, 4151-4160 (1993).
16. E. Hernández-García, J. Viñals, R. Toral, M. San Miguel
Fluctuations and pattern selection near an Eckhaus instability.
Physical Review Letters **70**, 3576-3579 (1993).
17. E. Hernández-García, C.R. Mirasso, K.A. Shore, M. San Miguel
Turn-on jitter of external cavity semiconductor lasers.
IEEE Journal of Quantum Electronics **30**, 241-248 (1994).
18. P.A. Pury, M.O. Cáceres, E. Hernández-García
First-Passage time and the fluctuation of the quenched disorder in biased media.
Physical Review E **49**, R967-R970 (1994).
19. M. San Miguel, A. Amengual, E. Hernández-García
Transient pattern dynamics and domain growth.
Phase Transitions **48**, 65-83 (1994).
20. I.S. Graham, E. Hernández-García, M. Grant
Damage spreading during domain growth.
Physical Review E **49**, R4763-4766 (1994).
21. R. Montagne, A. Amengual, E. Hernández-García, M. San Miguel
Multiple front propagation into unstable states.
Physical Review E **50**, 377-385 (1994).

22. C.R. Mirasso, E. Hernández-García
Effects of current modulation on timing jitter of single-mode semiconductor lasers in short external cavities.
IEEE Journal of Quantum Electronics **30**, 2281-2286 (1994).
23. C.R. Mirasso, E. Hernández-García, J. Dellunde, M.C. Torrent, J.M. Sancho
Current modulation and transient dynamics of single-mode semiconductor lasers under different feedback conditions.
IEE Proceedings-Optoelectronics, **142**, 17-22 (1995).
24. J. Dellunde, M.C. Torrent, C.R. Mirasso, E. Hernández-García, J.M. Sancho
Analytical calculations of switch-on time and timing jitter in diode lasers subjected to optical feedback and external light injection.
Optics Communications **115**, 523-527 (1995).
25. J. Dellunde, C.R. Mirasso, M.C. Torrent, J.M. Sancho, E. Hernández-García.
Transient dynamics of a single-mode semiconductor laser subjected to both optical feedback and external light injection.
Optical and Quantum Electronics **27**, 755-760 (1995).
26. J. Revuelta, L. Pesquera, E. Hernández-García, and C.R. Mirasso.
Effect of Phase-conjugate optical feedback on turn-on jitter in laser diodes.
Optics Letters **20**, 2213-2215 (1995).
27. A. Amengual, D. Walgraef, M. San Miguel, and E. Hernández-García
Wave-unlocking transition in resonantly coupled complex Ginzburg-Landau equations.
Physical Review Letters **76** 1956-1959 (1996).
28. R. Montagne, E. Hernández-García, M. San Miguel
Winding number instability in the phase-turbulence regime of the Complex Ginzburg-Landau Equation.
Physical Review Letters, **77**, 267-270 (1996).
29. R. Montagne, E. Hernández-García, and M. San Miguel
Numerical study of a Lyapunov functional for the complex Ginzburg-Landau equation.
Physica **D 96**, 47-65 (1996).
30. A. Amengual, E. Hernández-García, R. Montagne, and M. San Miguel
Synchronization of Spatiotemporal Chaos: The regime of coupled Spatiotemporal Intermittency.
Physical Review Letters **78** 4379-4382 (1997).
31. R. Montagne, E. Hernández-García, A. Amengual, and M. San Miguel
Wound-up phase turbulence in the complex Ginzburg-Landau equation.
Physical Review **E 56** 151-167 (1997).
32. J.H.E. Cartwright, E. Hernández-García, O. Piro
Burridge-Knopoff Models as Elastic Excitable Media.
Physical Review Letters, **79**, 527-530 (1997).
33. A. Álvarez, E. Hernández-García, J. Tintoré
Noise-sustained currents in quasigeostrophic turbulence over topography.
Physica **A 247**, 312-326 (1997).
34. A. Álvarez, E. Hernández-García, J. Tintoré
Noise rectification in quasigeostrophic forced turbulence.
Physical Review **E 58**, 7279-7282 (1998).
35. V.M. Eguíluz, P. Alstrom, E. Hernández-García, O. Piro
Average patterns of spatiotemporal chaos: A boundary effect.
Physical Review **E 59**, 2822-2825 (1999).
36. C.R. Mirasso, G.H.M. van Tartwijk, E. Hernández-García, D. Lenstra, S. Lynch, P. Landais, P. Phelan, J. O’Gorman, M. San Miguel, and W. Elsässer
Self-pulsating semiconductor lasers: Theory and experiment.
IEEE Journal of Quantum Electronics **35**, 764-770 (1999).

37. A. Álvarez, E. Hernández-García, J. Tintoré
Noise-induced flow in quasigeostrophic turbulence with bottom friction.
Physics Letters A **261**, 179-182 (1999).
38. M. Hoyuelos, E. Hernández-García, P. Colet, M. San Miguel
Defect-freezing and defect-unbinding in the vector complex Ginzburg-Landau equation.
Computer Physics Communications **121-122**, 414-419 (1999).
39. V.M. Eguíluz, E. Hernández-García, O. Piro, S. Balle
Frozen spatial chaos induced by boundaries.
Physical Review E **60** 6571-6579 (1999).
40. J.H.E. Cartwright, V.M. Eguíluz, E. Hernández-García, O. Piro
Dynamics of elastic excitable media.
International Journal of Bifurcation and Chaos **9**, 2197-2202(1999).
41. V.M. Eguíluz, E. Hernández-García, O. Piro
Boundary effects in the complex Ginzburg-Landau equation.
International Journal of Bifurcation and Chaos **9**, 2209-2214 (1999).
42. E. Hernández-García, M. Hoyuelos, P. Colet, R. Montagne, M. San Miguel
Spatiotemporal chaos, localized structures and synchronization in the vector complex Ginzburg-Landau equation.
International Journal of Bifurcation and Chaos **9**, 2257-2264 (1999).
43. A. Alvarez, E. Hernández-García, J. Tintoré
On the effect of small-scale oceanic variability on topography-generated currents.
Geophysical Research Letters **27**, 739-742 (2000).
44. Z. Neufeld, C. López, E. Hernández-García, T. Tél
Multifractal structure of chaotically advected chemical fields.
Physical Review E **61**, 3857-3866 (2000).
45. E. Hernández-García, M. Hoyuelos, P. Colet, M. San Miguel
Dynamics of localized structures in vectorial waves.
Physical Review Letters **85**, 744-747 (2000).
46. V.M. Eguíluz, E. Hernández-García, O. Piro
Boundary effects in extended dynamical systems.
Physica A **283**, 48-51 (2000).
47. R. Montagne, E. Hernández-García
Localized structures in coupled Ginzburg-Landau equations.
Physics Letters A **273**, 239-244 (2000).
48. A. Álvarez, C. López, M. Riera, E. Hernández-García, J. Tintoré
Forecasting the SST space-time variability of the Alboran Sea with genetic algorithms.
Geophysical Research Letters **27**, 2709-2712 (2000).
49. C. López, A. Álvarez, E. Hernández-García
Forecasting confined spatiotemporal chaos with genetic algorithms.
Physical Review Letters, **85**, 2300-2303 (2000).
50. C. López, Z. Neufeld, E. Hernández-García, P.H. Haynes
Chaotic advection of reacting substances: Plankton dynamics on a meandering jet.
Physics and Chemistry of the Earth B **26**, 313-317 (2001).
51. C. López, E. Hernández-García, O. Piro, A. Vulpiani, and E. Zambianchi
Population dynamics advected by chaotic flows: A discrete-time map approach.
Chaos **11**, 397-403 (2001).
52. V.M. Eguíluz, E. Hernández-García, O. Piro
Complex Ginzburg-Landau Equation in the Presence of Walls and Corners.
Physical Review E **64** 036205 (1-10)(2001).

53. Irene Sendiña-Nadal, Vicente Pérez-Muñuzuri, Víctor M. Eguíluz, Emilio Hernández-García, and Oreste Piro
Quasiperiodic patterns in boundary-modulated excitable waves.
Physical Review E **64**, 046208 (1-5)(2001).
54. Raúl Toral, Claudio R. Mirasso, E. Hernández-García, and Oreste Piro
Analytical and Numerical Studies of Noise-induced Synchronization of Chaotic Systems.
Chaos **11** 665-673 (2001).
55. M. Santagiustina, E. Hernández-García, M. San Miguel, A.J. Scroggie, G.-L. Oppo
Polarisation patterns and vectorial defects in type II optical parametric oscillators.
Physical Review E **65**, 036610 (1-14) (2002).
56. E. Hernández-García, C. Masoller, C.R. Mirasso
Anticipating the dynamics of chaotic maps.
Physics Letters A **295**, 39-43 (2002).
57. E. Hernández-García, C. López, and Z. Neufeld
Small-scale structure of nonlinearly interacting species advected by chaotic flows.
Chaos **12**, 470-480 (2002).
58. C. López, E. Hernández-García
The role of diffusion in the chaotic advection of a passive scalar with finite lifetime.
European Physical Journal B **28**, 353-359 (2002).
59. Z. Neufeld, C. López, E. Hernández-García, O. Piro
Excitable media in open and closed chaotic flows.
Physical Review E **66**, 066208 (1-12) (2002).
60. M. Hoyuelos, E. Hernández-García, P. Colet, M. San Miguel
Dynamics of Defects in the Vector Complex Ginzburg-Landau Equation.
Physica D **174**, 176-197 (2003).
61. Emilio Hernández-García, Cristóbal López, Zoltán Neufeld
Filament bifurcations in a one-dimensional model of reacting excitable fluid flow.
Physica A **327** 59-64 (2003).
62. Cristóbal López and Emilio Hernández-García
Low-dimensional dynamical system model for observed coherent structures in ocean satellite data
Physica A **328** 233-250 (2003).
63. Víctor M. Eguíluz, Emilio Hernández-García, Oreste Piro, Konstantin Klemm
Effective dimensions and percolation in hierarchically structured scale-free networks.
Physical Review E **68**, 055102(R) (1-4) (2003).
64. Emilio Hernández-García, Cristóbal López
Clustering, advection and patterns in a model of population dynamics with neighborhood-dependent rates.
Physical Review E **70**, 016216(1-11) (2004).
65. Emilio Hernández-García, Cristóbal López
Sustained plankton blooms under open chaotic flows.
Ecological Complexity **1**, 253-259 (2004).
66. Francesco d'Ovidio, Vicente Fernández, Emilio Hernández-García, Cristóbal López
Mixing structures in the Mediterranean Sea from Finite-Size Lyapunov Exponents.
Geophysical Research Letters **31**, L17203 (1-4) (2004).
67. Cristóbal López and Emilio Hernández-García
Fluctuations impact on a pattern-forming model of population dynamics with non-local interactions.
Physica D **199**, 223-234 (2004).
68. J. Schneider, V. Fernandez, E. Hernández-García
Leaking method approach to surface transport in the Mediterranean Sea from a numerical ocean model.
Journal of Marine Systems **57**, 111-126 (2005).

69. Emilio Hernández-García, Cristóbal López
Numerical studies of an interacting particle system and its deterministic description.
Physica A **356**, 95-99 (2005).
70. Emilio Hernández-García, Cristóbal López
Birth, death and diffusion of interacting particles.
Journal of Physics: Condensed Matter **17**, S4263-S4274 (2005).
71. M. Sandulescu, E. Hernández-García, C. López, U. Feudel
Kinematic studies of transport across an island wake, with application to the Canary islands.
Tellus A **58**, 605-615 (2006).
72. E. Hernández-García, A. F. Rozenfeld, V. M. Eguíluz, S. Arnaud-Haond, C. M. Duarte
Clone size distributions in networks of genetic similarity.
Physica D **224**, 166-173 (2006).
73. Cristóbal López, Francisco Ramos, Emilio Hernández-García
An absorbing phase transition from a structured active particle phase
Journal of Physics: Condensed Matter **19**, 065133(1-8) (2007).
74. Simone Pigolotti, Cristóbal López, Emilio Hernández-García
Species clustering in competitive Lotka-Volterra models
Physical Review Letters **98** 258101(1-4) (2007).
75. A. F. Rozenfeld, S. Arnaud-Haond, E. Hernández-García, V. M. Eguíluz, M.A. Matías, E. Serrão, C. M. Duarte
Spectrum of genetic diversity and networks of clonal organisms
Journal of the Royal Society Interface **4**, 1093-1102 (2007).
76. Cristóbal López, Emilio Hernández-García
Spatial patterns in non-locally interacting particle systems
European Physical Journal-Special Topics **146**, 37-45 (2007).
77. M. Sandulescu, C. López, E. Hernández-García, U. Feudel
Plankton blooms in vortices: the role of biological and hydrodynamic timescales.
Nonlinear Processes in Geophysics, **14**, 443-454 (2007).
78. E. Hernández-García, F. d'Ovidio, V. Fernández, E. García-Ladona, J. Isern-Fontanet, C. López, A.M. Mancho, D. Small, S. Wiggins
Stretching fields and lines in the transport dynamics of the Western Mediterranean.
PAMM, Proceedings in Applied Mathematics and Mechanics **7**, 1101307-1101308 (2007).
79. F. Ramos, C. López, E. Hernández-García, M.A. Muñoz
Crystallization and melting of bacteria colonies and Brownian Bugs.
Physical Review E **77**, 021102(1-12) (2008).
80. A.M. Mancho, E. Hernández-García, D. Small, S. Wiggins, V. Fernández
Lagrangian transport through an ocean front in the North-Western Mediterranean Sea.
Journal of Physical Oceanography **38**, 1222-1237 (2008).
81. V. Rossi, C. López, J. Sudre, E. Hernández-García, V. Garçon
Comparative study of mixing and biological activity of the Benguela and Canary upwelling systems.
Geophysical Research Letters **35**, L11602 (1-5) (2008).
82. M. Sandulescu, C. López, E. Hernández-García, U. Feudel
Biological activity in the wake of an island close to a coastal upwelling.
Ecological Complexity **5** 228-237 (2008).
83. E. Alejandro Herrada, Claudio J. Tessone, Konstantin Klemm, Víctor M. Eguíluz, Emilio Hernández-García, Carlos M. Duarte
Universal scaling in the branching of the Tree of Life
PLoS One **3** e2757 (1-6) (2008).
84. A.F. Rozenfeld, S. Arnaud-Haond, E. Hernández-García, V.M. Eguíluz, A.E. Serrão, C.M. Duarte
Network analysis identifies weak and strong links in a metapopulation system.
Proceedings of the National Academy of Sciences of the USA (PNAS) **105** 18824-18829 (2008).

85. M. A. García-Nustes, Emilio Hernández-García, Jorge A. González
Universal functions and exactly solvable chaotic systems.
Sao Paulo Journal of Mathematical Sciences **2**, 203-221 (2008)
86. F. d'Ovidio, J. Isern-Fontanet, C. López, E. Hernández-García, E. García-Ladona
Comparison between Eulerian diagnostics and Finite-Size Lyapunov Exponents computed from
Altimetry in the Algerian basin
Deep-Sea Research I **56**, 15-31 (2009).
87. T. Andersen, J. Carstensen, E. Hernández-García, C.M. Duarte
Ecological Thresholds and Regime Shifts: Approaches to Identification.
Trends in Ecology and Evolution **24**, 49-57 (2009).
88. F.S. Bacelar, S. Dueri, E. Hernández-García, J.-M. Zaldivar
Joint effects of nutrients and contaminants on the dynamics of a food chain in marine ecosystems.
Mathematical Biosciences **218**, 24-32 (2009).
89. Emilie Tew Kai, Vincent Rossi, Joël Sudre, Henri Weimerskirch, Cristóbal López, Emilio Hernández-
García, Francis Marsac, Véronique Garçon
Top marine predators track Lagrangian coherent structures
Proceedings of the National Academy of Sciences of the USA (PNAS) **106** 8245-8250 (2009).
90. Emilio Hernández-García, Cristóbal López, Simone Pigolotti, Ken H. Andersen
Species competition: coexistence, exclusion and clustering
Philosophical Transactions of the Royal Society A **367**, 3183-3195 (2009)
91. M. Pineda, R. Toral, E. Hernández-García
Noisy continuous-opinion dynamics
Journal of Statistical Mechanics: Theory and Experiment, P08001 (1-18) (2009)
92. V. Rossi, C. López, E. Hernández-García, J. Sudre, V. Garçon, Y. Morel
Surface mixing and biological activity in the four Eastern Boundary Upwelling Systems
Nonlinear Processes in Geophysics **16**, 557-568 (2009).
93. J.M. Zaldivar, F.S. Bacelar, S. Dueri, D. Marinov, P. Viaroli, E. Hernández-García
Modeling approach to nutrient and temperature driven regime shifts in shallow coastal ecosystems:
Competition between seagrass and macroalgae
Ecological Modelling **220**, 3100-3110 (2009)
94. R. Toral, E. Hernández-García, J.D. Gunton
Diversity-induced resonance in a system of globally coupled linear oscillators
International Journal of Bifurcation and Chaos **19**, 3499-3508 (2009)
95. S. Pigolotti, C. López, E. Hernández-García and K.H. Andersen
How Gaussian competition leads to lumpy or uniform species distributions
Theoretical Ecology **3**, 89-96 (2010).
96. Emilio Hernández-García, Murat Tuğrul, E. Alejandro Herrada, Víctor M. Eguíluz, Konstantin
Klemm
Simple models for scaling in phylogenetic trees
International Journal of Bifurcations and Chaos **20**, 805-811 (2010)
97. A. M. Mancho, S. Wiggins, A. Turiel, E. Hernández-García, C. López, and E. García-Ladona
Preface "Nonlinear processes in oceanic and atmospheric flows"
Nonlinear Processes in Geophysics **17**, 283-285 (2010).
98. E. Heinsalu, E. Hernández-García, C. López
Spatial clustering of interacting bugs: Lévy flights versus Gaussian jumps
Europhysics Letters **92**, 40011 (p1-p6) (2010). *Erratum*: Europhysics Letters **95**, 69902 (2011).
99. N. Komin, A.C. Murza, E. Hernández-García, R. Toral
Synchronization and entrainment of coupled circadian oscillators
Interface Focus **1**, 167-176 (2011).

100. A.P. Masucci, V.M. Eguíluz, E. Hernández-García, A. Kalampokis
Extracting directed information flow networks: an application to genetics and semantics
Physical Review E **83**, 026103 (1-6) (2011).
101. I. Hernández-Carrasco, E. Hernández-García, C. López, A. Turiel
How reliable are Finite-Size Lyapunov Exponents for the assessment of ocean dynamics?
Ocean Modelling **36**, 208-218 (2011).
102. A.P. Masucci, A. Kalampokis, V.M. Eguíluz, E. Hernández-García
Wikipedia information flow analysis reveals the scale-free architecture of the Semantic Space
PLoS ONE **6**, e17333 (1-7) (2011).
103. M. Pineda, R. Toral, E. Hernández-García
Diffusing opinions in bounded confidence processes
European Physical Journal D **62**, 109-117 (2011)
104. E.A. Herrada, V.M. Eguíluz, E. Hernández-García, C.M. Duarte
Scaling properties of protein family phylogenies
BMC Evolutionary Biology **11**, 155 (1-9) (2011)
105. E. Heinsalu, E. Hernández-García, C. López
Competitive Brownian and Lévy walkers
Physical Review E **85**, 041105 (1-10)(2012).
106. J.H. Bettencourt, C. López, E. Hernández-García
Oceanic three-dimensional Lagrangian Coherent Structures: A study of a mesoscale eddy in the Benguela upwelling region
Ocean Modelling, **51**, 73-83 (2012).
107. M. Patriarca, S. Postnova, H.A. Braun, E. Hernández-García, R. Toral
Diversity and noise effects in a model of homeostatic regulation of the sleep-wake cycle
PLoS Computational Biology **8**, e1002650 (1-17) (2012).
108. I. Hernández-Carrasco, C. López, E. Hernández-García, A. Turiel
Seasonal and regional characterization of horizontal mixing in the global ocean
Journal of Geophysical Research **117** C10007 (1-12) (2012).
109. Paolo Masucci, Sophie Arnaud-Haond, Víctor M. Eguíluz, Emilio Hernández-García, Ester A. Serrão
Genetic flow directionality and geographical segregation in a *Cymodocea nodosa* genetic diversity network
EPJ Data Science **1**, 11 (1-11) (2012).
110. G. Manzano, F. Galve, G-L. Giorgi, E. Hernández-García, R. Zambrini
Synchronization, quantum correlations and entanglement in oscillator networks
Scientific Reports **3** 1439 (1-6) (2013).
111. João H. Bettencourt, Cristóbal López, Emilio Hernández-García
Characterization of coherent structures in three-dimensional turbulent flows using the finite-size Lyapunov exponent
Journal of Physics A **46** 254022 (1-20) (2013).
112. E. Heinsalu, E. Hernández-García, C. López
Clustering determines who survives for competing Brownian and Lévy walkers
Physical Review Letters **110**, 258101 (1-5) (2013).
113. Mirjam van der Mheen, Henk A. Dijkstra, Avi Gozolchiani, Matthijs den Toom, Qingyi Feng, Juergen Kurths, and Emilio Hernandez-Garcia
Interaction network based early warning indicators for the Atlantic MOC collapse
Geophysical Research Letters **40**, 2714–2719 (2013).
114. I. Hernández-Carrasco, C. López, A. Orfila, and E. Hernández-García
Lagrangian transport in a microtidal coastal area: the Bay of Palma, Mallorca Island, Spain
Nonlinear Processes in Geophysics **20**, 921–933 (2013).

115. Miguel Pineda, Raúl Toral, Emilio Hernández-García
The noisy Hegselmann-Krause model for opinion dynamics
European Physical Journal B **86**, 490 (1-10) (2013).
116. Ricardo Martínez-García, Justin Calabrese, Emilio Hernández-García, Cristóbal López
Vegetation pattern formation in semiarid systems without facilitative mechanisms
Geophysical Research Letters **40**, 6143-6147 (2013).
117. Ismael Hernández-Carrasco, Vincent Rossi, Emilio Hernández-García, Veronique Garçon, Cristóbal López
The reduction of plankton biomass induced by mesoscale stirring: a modelling study in the Benguela upwelling
Deep Sea Research I **83**, 65–80 (2014).
118. F.S. Bacelar, J.M. Calabrese, E. Hernández-García
Exploring the tug of war between positive and negative interactions among savanna trees: Competition, dispersal, and protection from fire
Ecological Complexity **17**, 140–148 (2014).
119. P.V. Paulau, D. Gomila, C. López, E. Hernández-García
Self-localized states in species competition
Physical Review E **89**, 032724 (1-8)(2014).
120. Vincent Rossi, Enrico Ser Giacomi, Cristóbal López, Emilio Hernández-García
Hydrodynamic provinces and oceanic connectivity from a transport network help designing marine reserves
Geophysical Research Letters **41**, 2883-2891 (2014).
121. Sophie Arnaud-Haond, Yann Moalic, Emilio Hernández-García, Víctor M. Eguíluz, Filipe Alberto, Ester A. Serrão and Carlos M. Duarte
Disentangling the influence of mutation and migration in clonal seagrasses using the Genetic Distance Spectrum for microsatellites
Journal of Heredity **105**, 532-541 (2014).
122. R. Martínez-García, Calabrese, J.M., E. Hernández-García, C. López
Minimal mechanisms for vegetation patterns in semiarid regions
Philosophical Transactions of the Royal Society A **372**, 20140068 (1-11) (2014).
123. S. Keller-Schmidt, M. Tuğrul, V.M. Eguíluz, E. Hernández-García, K. Klemm
Anomalous scaling in an age-dependent branching model
Physical Review E **91**, 022803 (1-6) (2015) .
124. E. Ser-Giacomi, V. Rossi, E. Hernández-García, C. López
Flow networks: A characterization of geophysical fluid transport
Chaos **25**, 036404 (1-18) (2015).
125. E. Hernández-García, E. Heinsalu, C. López
Spatial patterns of competing random walkers
Ecological Complexity **21**, 166-176 (2015).
126. Ricardo Martínez-García, Clara Murgui, Emilio Hernández-García, Emilio; López, Cristóbal
Pattern Formation in Populations with Density-Dependent Movement and Two Interaction Scales
PLoS One **10**, e0132261 (1-14) (2015).
127. E. Ser-Giacomi, R. Vasile, E.Hernández-García, C. López
Most probable paths in temporal weighted networks: An application to ocean transport
Physical Review E **92**, 012818 (1-6) (2015).
128. E. Ser-Giacomi, R. Vasile, I. Recuerda, E.Hernández-García, C. López
Dominant transport pathways in an atmospheric blocking event
Chaos **25**, 087413 (1-10) (2015).
129. M. Patriarca, E. Hernández-García, R. Toral
Constructive effects of diversity in a multi-neuron model of the homeostatic regulation of the sleep-wake cycle
Chaos, Solitons and Fractals **81**, part B, 567-574 (2015).

130. J.H. Bettencourt, C. López, E. Hernández-García, I. Montes, J. Sudre, B. Dewitte, A. Paulmier, V. Garçon
Boundaries of the Peruvian Oxygen Minimum Zone shaped by coherent mesoscale dynamics
Nature Geoscience **8**, 937–940 (2015).
131. M. Dubois, V. Rossi, E. Ser-Giacomi, S. Arnaud-Haond, C. López, E. Hernández-García
Linking basin-scale connectivity, oceanography and population dynamics for the conservation and management of marine ecosystems.
Global Ecology and Biogeography **25**, 503–515 (2016).
132. L. Tupikina, N. Molkenthin, C. López, E. Hernández-García, N. Marwan, J. Kurths
Correlation networks from flows. The case of forced and time-dependent advection-diffusion dynamics.
PloS One **11**, e0153703 (1-12) (2016).
133. Víctor Rodríguez-Méndez, Víctor M. Eguíluz, Emilio Hernández-García, José J. Ramasco
Percolation-based precursors of transitions in extended systems
Scientific Reports **6**, 29552 (1-10) (2016).
134. V. Martín-Gómez, E. Hernández-García, M. Barreiro, C. López
Interdecadal variability of Southeastern South America rainfall and moisture sources during the Austral summer
Journal of Climate **29**, 6751-6763 (2016).
135. Jean-Baptiste Delfau, H el ene Ollivier, Crist obal L opez, Bernd Blasius, Emilio Hern andez-Garc ia
Pattern formation with repulsive soft-core interactions: Discrete particle dynamics and Dean-Kawasaki equation
Physical Review E **94**, 042120 (1-13) (2016).
136. Reik V. Donner, Emilio Hern andez-Garc ia, Enrico Ser-Giacomi,
Introduction to Focus Issue: Complex network perspectives on flow systems
Chaos **27**, 035601 (1-5) (2017).
137. V ctor Rodr guez-M endez, Enrico Ser-Giacomi, Emilio Hern andez-Garc ia
Clustering coefficient and periodic orbits in flow networks
Chaos **27**, 035803 (1-9) (2017).
138. Enrico Ser-Giacomi, V ctor Rodr guez-M endez, Crist obal L opez, Emilio Hern andez-Garc ia
Lagrangian Flow Network approach to an open flow model
European Physical Journal-Special Topics **226**, 2057-2068 (2017).
139. Nagi Khalil, Crist obal L opez, Emilio Hern andez-Garc ia
Nonlocal birth-death competitive dynamics with volume exclusion
Journal of Statistical Mechanics: Theory and Experiment **2017**, 063505 (1-21) (2017)
140. P. Monroy, E. Hern andez-Garc ia, V. Rossi, C. L opez
Modeling the dynamical sinking of biogenic particles in oceanic flow
Nonlinear Processes in Geophysics **24**, 293-305 (2017).
141. P. Monroy, V. Rossi, E. Ser-Giacomi, C. L opez, E. Hern andez-Garc ia
Sensitivity and robustness of larval connectivity diagnostics obtained from Lagrangian Flow Networks
ICES Journal of Marine Science **74**, 1763-1779 (2017).
142. D. Ruiz-Reyn es, D. Gomila, T. Sintes, E. Hern andez-Garc ia, N. Marb a, C.M. Duarte
Fairy-circle landscapes under the sea
Science Advances **3** e1603262 (1-8) (2017).
143. J.-B. Delfau, C. L opez, E. Hern andez-Garc ia
Active cluster crystals
New Journal of Physics **19**, 095001 (1-9) (2017).
144. Jo o H. Bettencourt , Vincent Rossi, Emilio Hern andez-Garc ia, Martinho Marta-Almeida, Crist obal L opez
Characterization of the structure and cross-shore transport properties of a coastal upwelling filament using three-dimensional finite-size Lyapunov exponents
Journal of Geophysical Research: Oceans, **122**, 7433–7448 (2017).

145. Ana M. Mancho, Emilio Hernández-García, Cristóbal López, Antonio Turiel, Stephen Wiggins, Vicente Pérez-Muñuzuri
Preface: Current perspectives in modelling, monitoring, and predicting geophysical fluid dynamics
Nonlinear Processes in Geophysics **25**, 125–127 (2018).
146. Peter Nooteboom, Qing Yi Feng, Cristóbal López, Emilio Hernández-García, and Henk Dijkstra
Using Network Theory and Machine Learning to predict El Niño
Earth Systems Dynamics **9**, 969-983 (2018).
147. Lorenzo Caprini, Emilio Hernández-García, and Cristóbal López
Cluster crystals with combined soft and hard-core repulsive interactions
Physical Review E **98**, 052607 (1-10) (2018).
148. G. Drótos P. Monroy, E. Hernández-García, C. López
Inhomogeneities and caustics in the sedimentation of noninertial particles in incompressible flows
Chaos **29**, 013115 (1-25)(2019).
149. A. Baudena, E. Ser-Giacomi, C. López, E. Hernández-García, F. d’Ovidio
Crossroads of the mesoscale circulation
Journal of Marine Systems **192**, 1-14 (2019).
150. Manuel Hidalgo, Vincent Rossi, Pedro Monroy, Enrico Ser-Giacomi, Emilio Hernández-García, Beatriz Guijarro, Enric Massutí, Francisco Alemany, Angelique Jadaud, José Luis Pérez, Patricia Reglero
Accounting for ocean connectivity and hydroclimate in fish recruitment fluctuations within trans-boundary metapopulations
Ecological Applications **29**, e01913 (1-13) (2019).
151. P. Monroy, G. Drótos, E. Hernández-García, C. López
Spatial inhomogeneities in the sedimentation of biogenic particles in ocean flows: analysis in the Benguela region
Journal of Geophysical Research: Oceans **124**, 4744–4762 (2019).
152. Henk A. Dijkstra, Paul Petersik, Emilio Hernández-García, Cristóbal López
The application of Machine Learning Techniques to improve El Niño prediction skill
Frontiers in Physics **7**, 153 (1-13) (2019).
153. Lorenzo Caprini, Emilio Hernández-García, Cristóbal López, Umberto M.B. Marconi
A comparative study between two models of active cluster-crystals
Scientific Reports **9**, 16687 (1-13) (2019).
154. E.H. Colombo, R. Martínez-García, C. López, E. Hernández-García
Spatial eco-evolutionary feedbacks mediate coexistence in prey-predator systems
Scientific Reports **9**, 18161 (1-15) (2019).
155. Daniel Ruiz-Reynés, Francesca Schönsberg, Emilio Hernández-García, Damià Gomila
A general model for vegetation patterns including rhizome growth
Physical Review Research **2**, 023402 (1-8) (2020).
156. Alessandro Sozza, Gabor Drótos, Emilio Hernández-García, Cristóbal López
Accumulated densities of sedimenting particles in turbulent flows
Physics of Fluids **32**, 075104 (1-11) (2020).
157. Jonas Rønning, Audun Skaugen, Emilio Hernández-García, Cristóbal López, Luiza Angheluta
Classical analogies for the force acting on an impurity in a Bose-Einstein condensate
New Journal of Physics **22**, 073018 (1-14) (2020).
158. Daniel Ruiz-Reynés, Luis Martín, Emilio Hernández-García, Edgar Knobloch, Damià Gomila
Patterns, localized structures and fronts in a reduced model of clonal plant growth
Physica D **414**, 132723 (1-11) (2020).
159. Vivian Dornelas, Eduardo H. Colombo, Cristóbal López, Emilio Hernández-García, Celia Anteonodo
Landscape-induced spatial oscillations in population dynamics
Scientific Reports **11**, 3470 (1-11) (2021)

160. Rebeca de la Fuente, Gábor Drótos, Emilio Hernández-García, Cristóbal López, Erik van Sebille
Sinking microplastics in the water column: Simulations in the Mediterranean Sea
Ocean Science, **17**, 431-453 (2021).
161. Gábor Drótos, Emilio Hernández-García, Cristóbal López
Local characterization of transient chaos on finite times in open systems
Journal of Physics: Complexity **2**, 025014 (1-15) (2021)
162. Enrico Ser-Giacomi, Alberto Baudena, Vincent Rossi, Mick Follows, Sophie Clayton, Ruggero Vasile, Cristóbal López, Emilio Hernández-García
Lagrangian betweenness as a measure of bottlenecks in dynamical systems with oceanographic examples
Nature Communications **12**, 4935 (1-14) (2021).
163. Noémie Ehstand, Reik V. Donner, Cristóbal López, Emilio Hernández-García
Characteristic signatures of Northern Hemisphere blocking events in a Lagrangian flow network representation of the atmospheric circulation.
Chaos **31**, 093128 (1-10) (2021).
164. Rebeca de la Fuente, Gábor Drótos, Emilio Hernández-García, Cristóbal López
Network and geometric characterization of three-dimensional fluid transport between two layers
Physical Review E **104**, 065111 (1-12) (2021).
165. Violeta Calleja-Solanas, Nagi Khalil, Jesús Gómez-Gardeñes, Emilio Hernández-García, Sandro Meloni
Structured interactions as a stabilizing mechanism for competitive ecological communities
Physical Review E **106**, 064307 (1-12)(2022).
166. Ricardo Martínez-García, Ciro Cabal, Justin M. Calabrese, Emilio Hernández-García, Corina E. Tarnita, Cristóbal López, Juan A. Bonachela
Integrating theory and experiments to link local mechanisms and ecosystem-level consequences of vegetation patterns in drylands
Chaos, Solitons and Fractals **166**, 112881 (1-13) (2023).
167. D. Ruiz-Reynés, E. Mayol, T. Sintés, I.E. Hendriks, E. Hernández-García, C.M. Duarte, N. Marbà and D. Gomila
Self-organized sulfide-driven traveling pulses shape seagrass meadows
Proceedings of the National Academy of Sciences (PNAS) **120**, e2216024120 (1-6) (2023).
168. Eduardo H. Colombo, Cristóbal López, Emilio Hernández-García
Pulsed interaction signals as a route to biological pattern formation
Physical Review Letters **130**, 058401 (1-5) (2023)
169. Camila de Mello, Marcelo Barreiro, Emilio Hernández-García, Romina Trinchina and Gastón Manta
A Lagrangian study of summer upwelling along the Uruguayan coast
Continental Shelf Research **258**, 104987 (1-11) (2023).
170. Noémie Ehstand, Reik V. Donner, Cristóbal López, and Emilio Hernández-García
Network percolation provides early warnings of abrupt changes in coupled oscillatory systems: an explanatory analysis
Physical Review E **108**, 054207 (1-11) (2023).
171. Roeland C. van de Vijssel, Emilio Hernández-García , Alejandro Orfila and Damià Gomila
Optimal wave reflection as a mechanism for seagrass self-organization
Scientific Reports **13**, 20278 (1-15) (2023).

Capítulos de Libro

1. E. Hernández-García, L. Pesquera, M.A. Rodríguez, M. San Miguel
Exact results for diffusion in a medium with dynamic disorder.
en *Synergetics, Order and Chaos*, pp. 580–589.
M.G. Velarde, editor. World Scientific (Singapore, 1988).

2. E. Hernández-García, M. Aguado, M. San Miguel
Gain noise in dye lasers: Intensity fluctuations and correlation functions.
en *Dynamics of Non-linear Optical Systems*, pp. 285–290.
L. Pesquera and F.J. Bermejo, editores. World Scientific (Singapore,1989).
3. E. Hernández-García, M. San Miguel, R. Toral, M. Aguado
Gain noise in dye lasers.
en *Coherence and Quantum Optics VI*, pp. 483–488.
J.H. Eberly, L. Mandel, E. Wolf, editors. Plenum (New York,1989).
4. M. San Miguel, M.O. Cáceres, P. Colet, F. de Pasquale, E. Hernández-García
Passage-time description of dynamic processes.
en *Instabilities and non-equilibrium structures III*.
E. Tirapegui , W. Zeller, editores. Kluwer (Dordrecht, 1991).
5. R. Montagne, E. Hernández-García, and M. San Miguel
Computational studies of the complex Ginzburg-Landau equation and its non-equilibrium potential.
en *3rd Granada Lectures in Computational Physics*, pp. 317–318.
P.L. Garrido, J. Marro, editors. Springer-Verlag (Heidelberg, 1995).
6. M. San Miguel, R. Montagne, A. Amengual, E. Hernández-García
Multiple front propagation in a potential non-gradient system.
en *Instabilities and non-equilibrium structures V*, pp. 85–97.
E. Tirapegui , W. Zeller, editores. Kluwer (Dordrecht, 1996).
7. V.M. Eguíluz, E. Hernández-García, O. Piro, S. Balle
Boundary induced frozen chaos.
en *FISES'97, Proceedings of the VIII Spanish Meeting on Statistical Physics*, pp. 215–216.
J.A. Cuesta, A. Sánchez, editores. CIEMAT (Madrid, 1998).
8. E. Hernández-García, T. Ala-Nissilä, P. Colet, M. Dubé, S. Majaniemi
Stochastic resonance in adatom diffusion on crystal surfaces.
en *FISES'97, Proceedings of the VIII Spanish Meeting on Statistical Physics*, pp. 239–240.
J.A. Cuesta, A. Sánchez, editores. CIEMAT (Madrid, 1998).
9. R. Toral, C. R. Mirasso, E. Hernández-García, O. Piro
Synchronization of chaotic systems by common random forcing.
en *Unsolved Problems of Noise and Fluctuations: UPON'99: second international conference*, pp. 255–260.
D. Abbott, L.B. Kish, editors. American Institute of Physics (Melville, NY, 2000).
10. P. Colet, R. Gallego, E. Hernández-García, M. Hoyuelos, G.L. Oppo, M. San Miguel, M. Santagiustina
Two-dimensional vectorial localized structures in optical cavities.
en *Nonlinear guided waves and their applications*, pp. 47–49. Optical Society of America (Washington DC, 1999).
11. A. Pascual, A. Orfila, A. Álvarez, E. Hernández, D. Gomis, A. Barth, J. Tintoré
SOFT PROJECT: A new ocean forecasting system based on satellite data.
en *Remote Sensing of the Ocean and Sea Ice 2001*, pp. 11-23.
C.R. Bostater Jr. and R. Santoleri, editors. SPIE–The International Society for Optical Engineering (Bellingham, 2002).
12. E. Hernández-García, C. López, and Z. Neufeld
Spatial Patterns in Chemically and Biologically Reacting Flows.
Chaos in Geophysical Flows, pp. 35-61, Ed. by G. Boffetta, G. Lacorata, G. Visconti, and A. Vulpiani. OTTO Editore (Torino, 2003).
13. Alberto Álvarez, Emilio Hernández-García, Joaquín Tintoré
On the topographic rectification of ocean fluctuations.
Instabilities and Nonequilibrium Structures VII & VIII, pp. 133-139, Ed. by Orazio Descalzi, Javier Martínez, and Enrique Tirapegui. Kluwer Academic Publishers (Dordrecht , 2004).

14. Victor M. Eguíluz, Emilio Hernández-García, Oreste Piro
Boundary-forced spatial chaos.
Instabilities and Nonequilibrium Structures VII & VIII, pp. 205-212, Ed. by Orazio Descalzi, Javier Martínez, and Enrique Tirapegui. Kluwer Academic Publishers (Dordrecht , 2004).
15. R. Montagne, Emilio Hernández-García
On some localized solutions of coupled Ginzburg-Landau equations.
Instabilities and Nonequilibrium Structures VII & VIII, pp. 273-279, Ed. by Orazio Descalzi, Javier Martínez, and Enrique Tirapegui. Kluwer Academic Publishers (Dordrecht , 2004).
16. E. Hernández-García, C. López
Logistic population growth and beyond: The influence of advection and nonlocal effects.
The Logistic Map and the Route to Chaos, pp. 117-129, Ed. by M. Ausloos and M. Dirickx. Springer-Verlag (Berlin, 2006).
17. E. Hernández-García, E. A. Herrada, A. F. Rozenfeld, C. J. Tessone, V. M. Eguíluz, C. M. Duarte, S. Arnaud-Haond, and E. Serrão
Evolutionary and Ecological Trees and Networks.
Nonequilibrium Statistical Mechanics And Nonlinear Physics: XV Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics, Ed. by O. Descalzi, O.A. Rosso and H.A. Larrondo. AIP Conference Proceedings Volume 913, American Institute of Physics (New York, 2007), pp. 78-83.
18. A.P. Masucci, A. Kalampokis, V.M. Eguíluz, E. Hernández-García
Semantic Space as a Metapopulation System: Modelling the Wikipedia Information Flow Network.
Towards a Theoretical Framework for Analyzing Complex Linguistic Networks, Ed. by A. Mehler, A. Lücking, S. Banisch, Ph. Blanchard, B. Job, pp. 133–151, Springer (Berlin, 2016).
19. Vincent Rossi, Enrico Ser-Giacomi, Mélodie Dubois, Pedro Monroy, Manuel Hidalgo, Emilio Hernández-García, Cristóbal López
Lagrangian Flow Networks: a new framework to study the multi-scale connectivity and the structural complexity of marine populations
CIESM Workshop Monograph 48: Marine connectivity – migration and larval dispersal, Ed. by F. Briand, pp. 39–51, CIESM Publisher (Monaco, 2016).
20. S. Canals, F. Bartumeus, A. Gomez-marin, L. Martinez-Otero, C. Marquez, s. Valverde, E. Hernandez-Garcia, C. Lopez, C. Mirasso, D. del Castillo, E. Rocon, F. Criado-Boado, J.R.B. Palmer, N. Castellanos, G. Diex, F. Maestu
Cognition, collective behaviors & consciousness
in *Brain, Mind and Behaviour*, edited by E. Herrera and J.A. Esteban, pp. 41-57, Editorial CSIC (Madrid, 2021).
21. R. Logares, J. Alos, I. Catalan, A. Crespo Solana, J. del Campo, G. Ercilla, R. Fablet, A. Fernandez-Guerra, M. Gali, J.M. Gasol, A.F. Gonzalez, E. Hernandez-Garcia, C. Lopez, R. Massana, L. Montiel, M. Palmer, A. Pascual, S. Pascual, F. Perez, M. Portabella, J.J. Ramasco, et al.
Oceans of big data and artificial intelligence
in *Ocean Science Challenges for 2030*, edited by A. Pascual, and D. Macias, pp. 162-179, Editorial CSIC (Madrid, 2021).

Artículos de Divulgación

1. E. Hernández-García, A. Amengual, R. Montagne, M. San Miguel, P. Colet, M. Hoyuelos
Moving pictures.
Europhysics News **29**, 184-187 (1998).
2. Emilio Hernández-García, Cristóbal López
Bichos que se reproducen y amontonan, y su descripción macroscópica.
Revista Española de Física **18**, 49-52 (2004).
3. Claudio R. Mirasso, Emilio Hernández-García
50 años del efecto mariposa
ENKI. Revista científico-cultural, Marzo, 54-58 (2013).

ESTANCIAS EN CENTROS EXTRANJEROS (superiores a cuatro semanas)

1-30 Marzo 1990: Center for the Physics of Materials and Department of Physics, McGill University, Montreal, Canada. Estancia invitada.

Septiembre 1990-Septiembre 1991: Center for the Physics of Materials and Department of Physics, McGill University, Montreal, Canada. Estancia postdoctoral.

SEMINARIOS IMPARTIDOS

1. *Tiempos de paso para difusión por ruido de Poisson.*
Departamento de Física, Universidad Autónoma de Barcelona.
Marzo 1987.
2. *Difusión en sistemas estática y dinámicamente desordenados.*
Departamento de Estructura y Constituyentes de la Materia, Universidad de Barcelona.
2 Noviembre 1989.
3. *Anomalous diffusion in random chains.*
Center for the Physics of Materials, McGill University.
Marzo 1990.
4. *Propagación múltiple de frentes sobre estados inestables.*
Departamento de Estructura y Constituyentes de la Materia, Universidad de Barcelona.
13 Enero 1994.
5. *Transient pattern formation by multiple front propagation.*
Center for the Physics of Materials, McGill University.
Julio 1994.
6. *Orden y Caos en la Ecuación Vectorial Compleja de Ginzburg-Landau.*
Departamento de Física Moderna, Universidad de Cantabria.
14 Junio 1995.
7. *Wound-up Phase Turbulence in the Complex Ginzburg-Landau Equation*
Institut für Theoretische Physik und Synergetik, Universität Stuttgart.
20 Diciembre 1996.
8. *Regular and Chaotic Behavior in a Vector Complex Ginzburg-Landau Equation*
Center for Chaos and Turbulence Studies, Niels Bohr Institute.
11 Julio 1997.
9. *Corrientes sostenidas por ruido en flujos geofísicos sobre topografía*
Instituto de Física, Universidad de la República, Uruguay.
10 Diciembre 1997.
10. *Advección, caos, y la inhomogeneidad de la distribución del plancton en la superficie del mar*
Facultad de Ciencias, Universidad de Málaga.
23 Marzo 1999.
11. *Caos, excitabilitat, transport, i les inhomogeneitats en la distribució de plancton*
Departament d'Ecologia, Universitat de Barcelona, i Societat Catalana de Biologia.
7 Marzo 2002.
12. *Chaos and excitability in simple reactive flows*
Laboratoire de Météorologie Dynamique, École Normale Supérieure, Paris.
3 Abril 2002.

13. *Caos, excitabilidad, i las inhomogeneidades en distribuciones de plancton*
Departamento de Física de la Materia Condensada (Universidad de Zaragoza) e Instituto de Ciencia de Materiales de Aragón (Universidad de Zaragoza-CSIC)
25 Junio 2002.
14. *Caos y excitabilidad en flujos reactivos simples*
Departamento de Matemáticas y Física Aplicadas y Ciencias de la Naturaleza, Universidad Rey Juan Carlos, Móstoles, Madrid.
28 Noviembre 2002.
15. *Caos, mescla en fluids, i les inhomegeneïtats en la distribució de plàncton*
Facultad de Ciencias, Universidad de las Islas Baleares. 20 Noviembre 2003.
16. *Plankton models in chaotic flows*
Institute for Chemistry and Biology of the Marine Environment, Carl von Ossietzky Universität Oldenburg (Alemania). 29 Enero 2004.
17. *Pattern formation in a model of bugs that live, reproduce, and cluster*
Center for Nonlinear Studies, Los Alamos National Laboratory, Los Alamos (USA). 6 Julio 2004.
18. *Pattern formation in a model of bugs that live, reproduce, and cluster*
Institute of Physics and Center for the Dynamics of Complex Systems, Universität Potsdam (Alemania). 2 Noviembre 2004.
19. *Sobre el uso de algoritmos evolutivos para encontrar leyes a partir de datos: Éxitos y límites*
Instituto de Investigaciones Biomédicas “Alberto Sols” (CSIC-UAM), Madrid. 23 Octubre 2009.
20. *Una ullada a l’entorn: Formes i forces a la natura*
Universitat de les Illes Balears, Conferència de *Física i Vida* dins el cicle “La nostra Ciència de cada Dia”. 19 Noviembre 2009.
21. *Mirant a l’entorn: Formes i forces a la natura*
Universitat de les Illes Balears, seminari de divulgació dins del *Curs d’Introducció a la Física Interdisciplinar i Sistemes Complexos*. 15 Diciembre 2011.
22. *Competitive Lévy and Brownian walkers: Patterns, clusters and survival*
Institut für Physik, Humboldt Universität, Berlin (Alemania). 21 Noviembre 2013.
23. *Oportunidades de modelagem em Ciências da vida e da terra: Uma panorâmica*
Instituto de Biología, Universidade Federal da Bahia, Salvador (Brasil). 23 Abril 2014.
24. *Lyapunov lines and flow networks: Impact of ocean transport on biological dynamics*
Instituto de Física, Universidade Federal da Bahia, Salvador (Brasil). 24 Abril 2014.
25. *Lyapunov exponents in the sea: On the impact of ocean transport on biological dynamics*
Departament de Física i Enginyeria Nuclear, Universitat Politècnica de Catalunya, Terrassa. 25 Febrero 2015.
26. *Network-theory approach to geophysical fluid transport*
Institute for Theoretical Physics, Eötvös University, Budapest (Hungría). 12 Diciembre 2018.
27. *Lines on the sea: connectivity, surface stirring and biological dynamics*
Centro Oceanográfico de Baleares, Instituto Español de Oceanografía. 1 Abril 2019
28. *Fairy circles under the sea: Pattern formation in meadows of marine plants*
Departament de Física i Enginyeria Nuclear, Universitat Politècnica de Catalunya, Terrassa. 3 Abril 2019.
29. *Pattern formation in seagrasses: Fairy circles under the sea (webinar)*
Centre for Complex Systems Studies, Utrecht University (Holanda). 29 Mayo 2020.
30. *Characterizing physical and ecological connectivity by Lagrangian flow networks: Dispersion, mixing and marine provinces (webinar)*
ICBM - Institut für Chemie und Biologie des Meeres, Carl von Ossietzky Universität, Oldenburg (Alemania). 21 Enero 2021.

31. *Network-theory tools to characterize physical and ecological connectivity in fluid flows* (webinar)
Departamento de Física, PUC-Rio (Brasil). 30 Septiembre 2021.
32. Mesa redonda en *Nuevos métodos en meteorología y climatología*. With Marcelo Barreiro, Ileana Bladé and Cristina Masoller.
Outreach activity during the conference *Weather and Climate Extremes and their Predictability*.
Barcelona, Septiembre 2022.

COMUNICACIONES ORALES EN CONGRESOS

1. *Gain noise in dye lasers: Intensity fluctuations and correlation functions.*
Workshop on 'Dynamics of Nonlinear Optical Systems'. Santander, Octubre 1988.
2. *Caracterización de desorden fuerte por la divergencia de un tiempo de difusión.*
III Congreso de Física Estadística, Badajoz, Abril 1990.
3. *Fluctuations and overlap distributions in the dynamics of non-equilibrium systems.*
II Twinning of the European Network on 'Complexity and Chaos in Quantum Optics'.
Nice, Febrero 1992.
4. *Transient pattern dynamics and few mode truncations.*
III Twinning of the European Network on 'Complexity and Chaos in Quantum Optics'.
Palma de Mallorca, Marzo 1993.
5. *Crecimiento de superficies rugosas en un campo dependiente del tiempo.*
V Congreso de Física Estadística.
El Escorial, Mayo 1993.
6. *Transient pattern formation by multiple front propagation.*
The Geometry of Forms in Equilibrium and Nonequilibrium Systems.
St. John's (Canada), Julio 1994.
7. *Effect of optical feedback and light injection on transient dynamics of single-mode semiconductor lasers.*
CLEO/Europe-EQEC (paper CTuL4).
Amsterdam, Agosto 1994.
8. *Regular and Chaotic Behavior in the Vector Complex Ginzburg-Landau Equation.* **Conferencia invitada**
Chaos: Towards the next century.
Como (Italia), Junio 1995.
9. *Una Inestabilidad tipo Eckhaus para Ondas Turbulentas.*
VII Congreso de Física Estadística.
Zaragoza, Mayo 1996.
10. *Interfases y Ecuaciones de Fase: el caso de la ecuación de Ginzburg-Landau compleja.*
Reunión Española sobre Procesos de Crecimiento y Fenómenos Interfaciales.
Leganés, Madrid, Julio 1996.
11. *Caos espacio-temporal en ecuaciones complejas de Ginzburg-Landau.* **Conferencia invitada.**
No-lineal 97.
Avila, Abril 1997.
12. *Spatio-Temporal Chaos in the Complex Ginzburg-Landau Equation.*
Meeting of the Computational Physics Board of the European Physical Society.
Palma de Mallorca, Septiembre 1997.
13. *Noise-sustained currents in geophysical flow over topography.*
7th Workshop on Instabilities and Nonequilibrium Structures.
Valparaíso, Chile, Diciembre 1997.
14. *Spatiotemporal chaos in the Vector Complex Ginzburg-Landau equation.*
STATPHYS 20, XX IUPAP International Conference on Statistical Physics.
Paris, Julio 1998.
15. *Noise rectification in ocean dynamics.*
Meeting of the Network *Nonlinear Dynamics of Spatio-temporal Selforganization*, Barcelona, Febrero 1999.
16. *Filaments and multifractals in advected chemicals and planktonic communities.*
European Science Foundation Study Center on *Transport in the Atmosphere and the Oceans (TAO)*.
Palma de Mallorca, Septiembre 1999.

17. *Noise rectification in quasigeostrophic forced turbulence.*
European Science Foundation Study Center on *Transport in the Atmosphere and the Oceans* (TAO).
Palma de Mallorca, Septiembre 1999.
18. *Spatial structures in relaxing and in excitable plankton models under chaotic advection*
XXV General Assembly of the European Geophysical Society. Nice, Francia, Abril 2000.
19. *Ondas, defectos y paredes en la dinámica de medios autooscilantes.* **Conferencia invitada.**
NoLineal2000. Almagro (Ciudad Real). Mayo 2000.
20. *Patchiness, excitability, and nonlinear dynamics in plankton distributions.* **Serie de tres conferencias invitadas.**
2nd Latin American Summer School on Instabilities and Nonlinear Dynamics: Applications in
Natural and Socio-Economical Systems. Valparaíso (Chile). Diciembre 2000.
21. *Spatial structures in reacting systems.* **Serie de tres conferencias invitadas.**
International Summer School on Dynamical Barriers, Stirring and Mixing in Geophysical Flows -
Mathematical Models and Applications (GEOMIX 2001). Cargèse (Francia). Agosto 2001.
22. *Spatial patterns in reacting flows: biological and chemical applications.* **Serie de dos conferencias invitadas.**
International Summer School on Atmospheric and Oceanic Sciences (ISSAOS 2001): Chaos in
geophysical flows. L'Aquila, Italia. Septiembre 2001.
23. *Excitable media in open flows.*
Chemical and Biological Activity in Flows (ACTIFLOW Workshop). Dresden, Alemania, Septiembre
2002.
24. *A reminder on empirical orthogonal function analysis.*
2nd workshop of the EU project SOFT: Satellite-based ocean forecasting. Calanova (Mallorca),
Octubre 2002.
25. *Reactive media in open and closed chaotic flows: the case of excitable dynamics.* **Conferencia invitada.**
MEDYFINOL'02: XIII Meeting on Nonequilibrium Statistical Mechanics and Nonlinear Physics.
Colonia del Sacramento, Uruguay, Diciembre 2002.
26. *Excitable dynamics in open chaotic flows.*
European Geophysical Society/American Geophysical Union Joint Assembly, Nice, Francia, Abril
2003.
27. *Excitable population dynamics under fluid stirring: Plankton models in open flows.*
2nd International Conference on Mathematical Ecology (AICME II). Alcalá de Henares, Septiembre
2003.
28. *Population dynamics in flows: Excitability, persistence, and patterns.* **Conferencia invitada.**
Kolmogorov's Legacy in Physics: One Century of Chaos, Turbulence and Complexity. Trieste,
Italia, Septiembre 2003.
29. *Clustering and advection in simple models of population dynamics .*
Dynamics Days Europe 2003, Palma de Mallorca, Septiembre 2003.
30. *Plankton models in chaotic flows.*
Minisymposium on *Interaction of biological growth and mixing processes in fluids.* Oldenburg
(Alemania), Enero 2004.
31. *Searching for manifolds in the Mediterranean sea: Some simple dynamical systems approaches .*
Conferencia invitada.
London Mathematical Society Meeting on 'Scalar mixing in fluid flows and mappings'. Bristol
(Gran Bretaña), Mayo 2004.
32. *Biological dynamics in stirred fluids: Logistic growth and beyond.* **Conferencia invitada.**
Verhulst 200 on Chaos. Brussels (Bélgica), Septiembre 2004.
33. *Pattern formation in a model of bugs that live, reproduce, and cluster.* **Conferencia invitada.**
MEDYFINOL'04: XIV Meeting on Nonequilibrium Statistical Mechanics and Nonlinear Physics.
La Serena, Chile, Diciembre 2004.

34. *Nonlinear scenarios for planktonic dynamics in chaotic flows.*
International Cross-Disciplinary Symposium on Physics and Biology. Oslo, Noruega, Marzo 2005.
35. *Dinámica de poblaciones en flujos turbulentos: caos, orden y excitabilidad.* **Conferencia invitada.**
FISES2005, XIII Congreso de Física Estadística. Madrid, Junio 2005.
36. *Excitability Threshold for Plankton in Open Flows.*
1st Annual Assembly of the THRESHOLDS Integrated Project. Madrid, Febrero 2006
37. *Networks of genetic relationship between clonal plants.*
Dynamics on Complex Networks and Applications (DYONET06 2nd week Seminar). Dresden, Alemania, Febrero 2006.
38. *Networks of Genetic Similarity in Populations of Clonal Plants.*
Workshop on Social and Ecological Networks, European Conference on Complex Systems (ECCS06). Oxford, Gran Bretaña, Septiembre 2006.
39. *Genetic Similarity and Evolutionary Networks.* **Conferencia invitada.**
MEDYFINOL'06: XV Meeting on Nonequilibrium Statistical Mechanics and Nonlinear Physics. Mar del Plata, Argentina, Diciembre 2006.
40. *Transport dynamics in the Western Mediterranean: Stretching fields and hyperbolic lines .* **Conferencia invitada.**
Session NP6.01, European Geosciences Union General Assembly 2007. Viena(Austria), Abril 2007.
41. *Stretching fields and lines in the transport dynamics of the Western Mediterranean.* **Conferencia invitada.**
Minisymposium on *Mixing in Industry and the Environment*, 6th International Congress on Industrial and Applied Mathematics (ICIAM07). Zürich, (Suiza), Julio 2007.
42. *Genetic similarity networks: Weak and strong links in populations and in metapopulations.*
European Conference on Complex Systems (ECCS07). Dresden, Alemania, Octubre 2007.
43. *Universal scaling in phylogenetic branching.*
European Conference on Complex Systems (ECCS07). Dresden, Alemania, Octubre 2007.
44. *Ecological Diversity and Evolutionary Networks: The EDEN project.*
Showcase of European Complexity Science Projects (CRP Forum). Dresden, Alemania, Octubre 2007.
45. *Genetic Similarity Networks in Populations and in Metapopulations.*
Workshop on Dynamics and Evolution of Biological and Social Networks. Palma de Mallorca, España, Febrero 2008.
46. *Characterizing ocean processes with finite-size Lyapunov exponents.* **Conferencia invitada.**
Session NP3.01, European Geosciences Union General Assembly 2008. Viena(Austria), Abril 2008.
47. *Universal branching in phylogenetic trees.* **Conferencia invitada**
International Conference "Modelling and Computation on Complex Networks and Related Topics", Net-Works 2008. Pamplona, España, Junio 2008.
48. *Species clustering in models of biological evolution.* **Conferencia invitada.**
MEDYFINOL'08: XVI Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics. Punta del Este, Uruguay, Diciembre 2008.
49. *Synchronization and stochasticity in circadian oscillators ensembles.*
BioSim workshop on Methodological Challenges for Systems Biology: linking networks, crossing scales. Venecia, Italia, 30 Marzo -3 Abril 2009.
50. *Ocean transport dynamics characterized by stretching fields and lines.*
RTRA-STAE Workshop on Geometrical and multiscale approaches for predictability and analysis of complex data in astrophysics and geophysics. Montargut-Sur-Save, Francia, Mayo 2009.
51. *Stretching fields and lines in ocean transport dynamics.* **Conferencia invitada.**
EPSRC Symposium Capstone Conference. Minisymposium on *Lagrangian structure, Lagrangian data*. University of Warwick, Gran Bretaña, Julio 2009.

52. *Frigatebirds follow Lagrangian Coherent Structures.*
Lagrangian Analysis and Prediction of Coastal and Ocean Dynamics (LAPCOD) 2009. La Londe-des-Maures, Francia, Septiembre 2009.
53. *Stretching structures from finite-size Lyapunov exponents: their impact across all biological scales.*
Thematic Institute on *Lyapunov analysis: from theory to geophysical applications.* Institut des Systemes Complexes (ISC-PIF), Paris, Francia, Octubre 2009.
54. *Stretching fields and lines from finite-size Lyapunov exponents: ocean transport and biological impact. Conferencia invitada.*
Workshop on *Exploring Complex Dynamics in High-Dimensional Chaotic Systems: From Weather Forecasting to Oceanic Flows (ECODYC10).* Dresden, Alemania, Enero 2010.
55. *Biological impact of ocean transport: A finite-size Lyapunov characterization*
3rd Conference on Nonlinear Science and Complexity (NSC10). Ankara, Turquía, Julio 2010.
56. *Savanna-Fire Model: Combined effects of tree-tree establishment competition and spatially explicit fire on the spatial pattern of trees in savannas.*
Emergence and Design of Robustness (ROBUST). Palma de Mallorca, Septiembre 2010.
57. *Stretching structures in the ocean surface: transport and biological impacts. Conferencia invitada.*
Coherent Structures in Dynamical Systems. Leiden (Holanda), Mayo 2011.
58. *Following the line: Marine birds fly on top of ocean coherent structures. Conferencia invitada.*
Search and stochastic phenomena in complex physical and biological systems. Palma de Mallorca, Mayo 2012.
59. *Heterogeneity effects on the synchronization and entrainment of coupled circadian oscillators.*
2012 International Symposium on Nonlinear Theory and its Applications, NOLTA2012. Palma de Mallorca, Octubre 2012.
60. *Lines in the ocean: Impacts of chaotic stirring across biological scales. Conferencia invitada.*
MEDYFINOL 2012: XVII Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics. Santiago, Chile, Diciembre 2012.
61. *Anticipating climatic tipping points and regime shifts. Conferencia invitada.*
2nd LINC (Learning about Interacting Networks in Climate) School. Soesterberg, Holanda, Abril 2013.
62. *Patterns and survival of competitive Lévy and Brownian walkers*
Dynamics Days Europe 2013. Madrid, Junio 2013.
63. *Mobility and flow effects across biological scales. Conferencia invitada.*
Models in Population Dynamics and Ecology, MPDE'13. Osnabrück, Alemania, Agosto 2013.
64. *Competitive patterns of interacting random walkers. Conferencia invitada.*
Third Summer School on Statistical Physics of Complex and Small Systems. Palma de Mallorca, Septiembre 2013.
65. *Network approaches to transport and mixing. Conferencia invitada.*
Workshop on Mixing, Transport, and Coherent Structures, Mathematisches Forschungsinstitut Oberwolfach, Alemania, Enero 2014.
66. *Líneas de Lyapunov y redes de flujo: impacto del transporte oceánico en procesos biológicos. Conferencia invitada.*
NoLineal 2014. Badajoz, Junio 2014.
67. *Stretching fields in the ocean from finite-size Lyapunov exponents: Biological impacts of fluid transport Conferencia invitada.*
10th AIMS Conference on Dynamical Systems, Differential Equations and Applications. Madrid, Julio 2014.
68. *Large-scale transport in oceans: statistical and dynamical systems approaches. Serie de cinco conferencias invitadas.*
IV Summer School on Statistical Physics of Complex and Small Systems. Palma de Mallorca, Septiembre 2014.

69. *Networks of geophysical transport*. **Conferencia invitada**.
LINC - “Learning about Interacting Networks in Climate” Satellite in the European Conference on Complex Systems (ECCS14). Lucca, Italia, Septiembre 2014.
70. *Dominant transport pathways in oceanic and atmospheric flows*
European Geosciences Union General Assembly 2015. Viena, Austria, Abril 2015.
71. *Lagrangian flow networks: dispersion, mixing and coherence through connectivity measures*
CONFLOW 2015: Complex network perspectives on flow systems. Potsdam, Alemania, Septiembre 2015.
72. *Birth, death, diffusion and repulsion: a variety of pattern forming instabilities arising from non-local interactions*
XX Congreso de Física Estadística. Badajoz, Octubre 2015.
73. *Fairy circles under the sea: Pattern formation in meadows of marine plants*. **Conferencia invitada**.
CSNDD’2016: Third International Conference on Structural Nonlinear Dynamics and Diagnosis. Minisymposium on Nonlinear dynamics in spatially extended systems: theory and experiments. Marrakech, Marruecos, Mayo 2016.
74. *Network approaches to oceanic and atmospheric transport*. **Conferencia invitada**.
DAMES 2016: Data Analysis and Modeling in Earth Sciences. Hamburg, Alemania, Septiembre 2016.
75. *Lagrangian Flow Networks: Theory and applications*.
2nd HYDROGENCONNECT workshop. Erdemli, Turquía, Octubre 2016.
76. *Stretching fields in the ocean: Transport and coherent structures*. **Conferencia invitada**.
EarthFlows2017 workshop on Interface Dynamics in Geophysical Flows. Oslo, Noruega, Junio 2017.
77. *Lyapunov lines and flow networks: impact of ocean transport on biological dynamics*. **Conferencia invitada**.
VIII Escola de Física da Universidade Federal da Bahia. Salvador, Brasil, Septiembre 2017.
78. *Clustering together with your competitors: Cluster crystals in passive and active matter*. **Conferencia invitada**.
II Encontro Nacional de Física Estatística, ENFE 2017. Ilhéus, Brasil, Septiembre 2017.
79. *Competing but close together: Cluster crystals in passive and active matter*. **Conferencia invitada**.
LAWNP2017, XV Latin American Workshop on Nonlinear Phenomena. La Serena, Chile, Noviembre 2017.
80. *Percolation and network indicators of network transitions*. **Conferencia invitada**.
International Workshop “Predicting transitions in complex systems”. Dresden, Alemania, Abril 2018.
81. *Stretching fields in ocean transport*
“Mixing Day”. Barcelona, Mayo 2018.
82. *Ocean transport, coherent structures and their impact on chemical and ecological marine processes*. **Serie de tres conferencias invitadas**.
CNRS Summer School on “Active transport in the Ocean: Turbulence, Chemistry and Biology”. Wimereux, Francia, Julio 2018.
83. *Vegetation patterns under the sea*. **Conferencia invitada**.
Dynamics Days Europe 2018, Minisymposium on “Pattern Formation”. Loughborough, Gran Bretaña, Septiembre 2018
84. *Modeling the connectivity of marine populations by Lagrangian flow networks*.
Physics and ecology: Challenges at the frontier. Maó, Menorca, Octubre 2018.
85. *Underwater pattern formation in marine plants*. **Conferencia invitada**.
Advances in Pattern Formation: New Questions Motivated by Applications. Sede Boqer, Israel, Febrero 2019.

86. *On the sinking of biogenic particles in ocean flows.*
Turbulence Effects on Active Species in Atmosphere and Ocean (TEASAO) workshop. St-Ferréol, Francia, Octubre 2019.
87. *Large-scale transport in the oceans. Conferencia invitada*
1st CAFE (Climate Advanced Forecasting of sub-seasonal Extremes) School. Sitges, Barcelona, Noviembre 2019.
88. *Patterns and fronts in underwater clonal vegetation. Conferencia invitada*
XVII International Workshop on Instabilities and Nonequilibrium Structures. Valparaiso, Chile, Diciembre 2019.
89. *Anticipating climatic tipping points and regime shifts. Classical and Network methods of anticipation. Conferencia invitada.*
1st CAFE (Climate Advanced Forecasting of sub-seasonal Extremes) online workshop. Septiembre 2020 (webinar).
90. *Optimal monitoring of the ocean surface by observing the transport crossroads.*
European Geosciences Union General Assembly 2021 (vEGU21: Gather Online). Abril 2021.
91. *Lagrangian flow networks, connectivity and betweenness of marine populations.*
ECONET2021: V Symposium on Ecological Networks. Palma de Mallorca, Noviembre 2021.
92. *Lagrangian Flow Networks. Combining network theory and dynamical systems to characterize physical and ecological connectivity in fluid flows. Conferencia invitada*
XVIII International Workshop on Instabilities and Nonequilibrium Structures (online), Diciembre 2021.
93. *Patterns and fronts in underwater vegetation. Conferencia invitada*
International Symposium on Nonlinear Dynamics and Complex Structures in the Geosciences. Oldenburg, Alemania, Julio 2022.
94. *Flow-Network Characterization of Transient Chaos in Open Systems. Conferencia invitada.*
Dynamics Days Europe 2022, Minisymposium on “Transient Chaos”. Aberdeen, Gran Bretaña, Agosto 2022
95. *Linking network theory, dynamical systems and fluid flows: the Lagrangian betweenness.*
Conference on Complex Systems 2022 (CCS2022). Palma de Mallorca, Octubre 2022.
96. *Connectivity bottlenecks in ocean flows characterized by the Lagrangian betweenness.*
Resilience and recovery in aquatic systems. ASLO Aquatic Sciences Meeting 2023. Palma de Mallorca, Junio 2023.
97. *Lagrangian betweenness: connecting network theory, dynamical systems and fluid flows. Conferencia invitada.*
Nolineal2023, 13th Conference on Nonlinear Mathematics and Physics. Centre de Recerca Matemàtica, Univ. Autònoma de Barcelona, Junio 2023.
98. *Competitive non-local interactions as a route to pattern formation. Conferencia invitada.*
StatPhys28, the 28th International Conference on Statistical Physics. Tokio, Japón, Agosto 2023.

Lista parcial de comunicaciones a congresos en forma de poster (P), u orales impartidas por otra persona

1. E. Hernández-García, L. Pesquera, M.A. Rodríguez, M. San Miguel.
Tiempos de paso para difusión por ruido de Poisson. (P)
I Reunión de Física Estadística. Barcelona, Abril 1987.
2. E. Hernández-García, L. Pesquera, M.A. Rodríguez, M. San Miguel.
Caminos aleatorios en cadenas con desorden dinámico. (P)
II Congreso de Física Estadística. Palma, Noviembre 1988.

3. E. Hernández-García, M. Aguado, M. San Miguel
Transición de primer orden y funciones de correlación en láseres con fluctuaciones de ganancia. (P)
II Congreso de Física Estadística. Palma, Noviembre 1988.
4. E. Hernández-García, M.A. Rodríguez, L. Pesquera, M.San Miguel.
New results for random walk in disordered chains. (P)
9th General Conference of the Condensed Matter Division of the European Physical Society. Nice, Marzo 1989.
5. E. Hernández-García, M.A. Rodríguez, L. Pesquera, M. San Miguel.
New results for random walk in disordered chains. (P)
NATO Advanced Research Workshop on Noise and Chaos in Nonlinear Dynamical Systems. Torino, Marzo 1989.
6. E. Hernández-García, M. San Miguel, R. Toral, M. Aguado
Gain noise in dye lasers. (P)
Sixth Rochester Conference on Coherence and Quantum Optics.
Rochester, Junio 1989.
7. E. Hernández-García, L. Pesquera, M.A. Rodríguez, M. San Miguel.
Random walk in dynamically disordered chains. (P)
17th IUPAP International Conference on Thermodynamics and Statistical Mechanics.
Rio de Janeiro, Agosto 1989.
8. M.A.Rodríguez, E.Hernández-García, L.Pesquera, M.San Miguel.
Diffusion in strong disordered chains.
17th IUPAP International Conference on Thermodynamics and Statistical Mechanics.
Rio de Janeiro, Agosto 1989.
9. E. Hernández-García, M. San Miguel, R. Toral, M. Aguado.
Fluctuaciones de ganancia en láseres de colorante. (P)
XXII Reunión Bienal de la RSEF. Palma, Octubre 1989.
10. E. Hernández-García, M.A. Rodríguez, L. Pesquera, M.San Miguel.
Caminos aleatorios en sistemas con desorden estático y dinámico. (P)
XXII Reunión Bienal de la RSEF. Palma, Octubre 1989.
11. E. Hernández-García, J. Viñals, R. Toral, M. San Miguel.
Study of the Swift-Hohenberg equation in the presence of noise. (P)
Statistical physics at the 45th parallel. Montreal, Octubre 1990.
12. E. Hernández-García, J. Viñals, R. Toral, M. San Miguel.
Noise and pattern selection in the one-dimensional Swift-Hohenberg equation. (P)
March Meeting of the APS. Cincinnati, Marzo 1991.
13. E. Hernández-García, J. Viñals, R. Toral, M. San Miguel.
Noise, pattern selection and the Eckhaus instability. (P)
IV Congreso de Física Estadística. Gijón, Septiembre 1991.
14. E. Hernández-García, M. San Miguel, N.B. Abraham, F. de Pasquale.
Frequency selection and transient dynamics in single-mode lasers with optical feedback. (P)
IV Congreso de Física Estadística. Gijón, Septiembre 1991.
15. E. Hernández-García, J. Viñals, R. Toral, M. San Miguel.
Fluctuaciones críticas y selección de estructuras en la inestabilidad de Eckhaus. (P)
V Congreso de Física Estadística. El Escorial, Mayo 1993.
16. A. Amengual, E. Hernández-García, M. San Miguel.
Efectos de tamaño finito en la dinámica de estructuras transitorias unidimensionales. (P)
V Congreso de Física Estadística. El Escorial, Mayo 1993.
17. E. Hernández-García, J. Viñals, R. Toral, M. San Miguel.
Fluctuations effects near an Eckhaus instability. (P)
Chaos, order and patterns, Como, Italia, Septiembre 1993.

18. R. Montagne, A. Amengual, E. Hernández-García, M. San Miguel.
Secondary front propagation into unstable states. (P)
Chaos, order and patterns, Como, Italia, Septiembre 1993.
19. C.R. Mirasso, E. Hernández-García.
Effects of Current Modulation of Diode Lasers in Short External Cavities.
Semiconductor and Integrated Optoelectronics (SIOE '94), Cardiff, Gran Bretaña, March 1994.
20. J. Revuelta, L. Pesquera, E. Hernández-García, C.R. Mirasso.
Turn-on Jitter of Laser Diodes with Phase Conjugate Feedback. (P)
Semiconductor and Integrated Optoelectronics (SIOE '94), Cardiff, Gran Bretaña, March 1994.
21. I.S. Graham, E. Hernández-García, M. Grant.
Damage spreading during domain growth (P)
25 years of Statistical Mechanics. Sitges, Junio 1994.
22. R. Montagne, A. Amengual, E. Hernández-García, M. San Miguel.
Transient pattern formation by multiple front propagation. (P)
25 years of Statistical Mechanics. Sitges, Junio 1994.
23. J. Revuelta, L. Pesquera, E. Hernández-García, C.R. Mirasso.
Effect of phase-conjugate optical feedback on turn-on jitter in laser diodes (P)
CLEO/Europe-EQEC. Amsterdam, Agosto 1994.
24. E. Hernández-García, I.S. Graham, M. Grant.
Damage propagation out of equilibrium. (P)
VI Congreso de Física Estadística. Sevilla, Octubre 1994.
25. J. Revuelta, L. Pesquera, E. Hernández-García, C.R. Mirasso.
Efecto del feedback conjugado en la dispersión del tiempo de encendido de un diodo láser. (P)
VI Congreso de Física Estadística. Sevilla, Octubre 1994.
26. J. Dellunde, J.M. Sancho, M.C. Torrent, C.R. Mirasso, E. Hernández-García.
Estadística de tiempos de paso en un láser semiconductor con feedback y señal inyectada. (P)
VI Congreso de Física Estadística. Sevilla, Octubre 1994.
27. R. Montagne, E. Hernández-García, M. San Miguel.
Study of the disordered regimes in the complex Ginzburg-Landau equation and its non-equilibrium potential. (P)
VI Congreso de Física Estadística. Sevilla, Octubre 1994.
28. E. Hernández-García, O. Piro.
Terremotos lubricados en medios excitables elásticos.
VI Congreso de Física Estadística. Sevilla, Octubre 1994.
29. A. Alvarez, J. Tintoré, E. Hernández-García.
Implications of Langevin topographic turbulence on large-scale ocean modelling. (P)
XX General Assembly of the European Geophysical Society. Hamburgo, Abril 1995.
30. A. Amengual, M. San Miguel, R. Montagne, E. Hernández-García.
Polarization Pattern Dynamics in the Laser Vector Complex Ginzburg-Landau Equation. (P)
Nonlinear Dynamics in Optical Systems'95. Rochester, Junio 1995.
31. M. San Miguel, A. Amengual, E. Hernández-García, R. Montagne.
Polarization Pattern Dynamics in a Laser.
International Workshop on Measures of Spatio-Temporal Dynamics. Bryn Mawr, Junio 1995.
32. M. San Miguel, R. Montagne, E. Hernández-García. *Numerical Analysis of a Lyapunov Functional for the Complex Ginzburg-Landau Equation.* (P)
International Workshop on Measures of Spatio-Temporal Dynamics. Bryn Mawr, Junio 1995.
33. E. Hernández-García, O. Piro.
Lubricated Earthquakes in Excitable Media.
Chaos: Towards the Next Century. Como, Junio 1995.

34. A. Amengual, E. Hernández-García, R. Montagne, M. San Miguel, D. Walgraef.
Regular and Chaotic Behavior in the Vector Complex Ginzburg-Landau Equation. (P)
Dynamics Days'95. Lyon, Junio 1995.
35. E. Hernández-García, O. Piro.
Lubricated Earthquakes in Elastic Excitable Media. (P)
Dynamics Days'95. Lyon, Junio 1995.
36. R. Montagne, E. Hernández-García, and M. San Miguel.
Survey on an Approximate Non-Equilibrium Potential for the Complex Ginzburg-Landau Equation.
(P)
Dynamics Days'95. Lyon, Junio 1995.
37. A. Alvarez, E. Hernández-García, J. Tintoré.
Renormalization Group Analysis of Beta-plane Turbulence.
XXI General Assembly of the European Geophysical Society. La Haya, Mayo 1996.
38. A. Alvarez, E. Hernández-García, J. Tintoré.
Corrientes sostenidas por ruido en turbulencia cuasigeostrofica sobre topografía. (P)
VII Congreso de Física Estadística. Zaragoza, Mayo 1996.
39. R. Montagne, E. Hernández-García, and M. San Miguel.
Eckhaus-like instability in the phase-turbulence regime of the Complex Ginzburg-Landau equation.
(P)
Dynamics Days'96. Lyon, Julio 1996.
40. A. Alvarez, E. Hernández-García, J. Tintoré.
Noise-induced average currents in quasigeostrophic turbulence over bottom topography. (P)
Dynamics Days'96. Lyon, Julio 1996.
41. V. Martínez, E. Hernández-García, O. Piro, S. Bal.le.
Caos espacial inducido por contornos ondulados. (P)
No-lineal 97. Avila, 10-12 Abril 1997.
42. J. Cartwright, E. Hernández-García, O. Piro.
Stick-slip dynamics, elastic excitable media, and active transmission lines. (P)
No-lineal 97. Avila, 10-12 Abril 1997.
43. A. Alvarez, E. Hernández-García, J. Tintoré.
Noise-sustained structures in quasigeostrophic turbulence. (P)
XXII General Assembly of the European Geophysical Society. Viena, Abril 1997.
44. C. Mirasso, E. Hernández-García, M. San Miguel, D. Lenstra, G. van Tartwijk, S. Lynch, P. Landais,
P. Phelan, J. O'Gorman.
Self pulsation frequency dependence of CD lasers: a comparison between experiment and theory.
Semiconductor and Integrated Optoelectronics Conference SIOE'97. Cardiff, Abril 1997.
45. V. Martínez Eguíluz, E. Hernández-García, O. Piro, S. Bal.le.
Caos espacial inducido por contornos ondulados. (P)
VII Congreso de Física Estadística, FISES'97. Getafe, Septiembre 1997.
46. T. Ala-Nissilä, P. Colet, M. Dubé, E. Hernández-García, S. Majaniemi.
Resonancia estocástica en difusión de adátomos sobre superficies cristalinas. (P)
VII Congreso de Física Estadística, FISES'97. Getafe, Septiembre 1997.
47. C. López, A. Álvarez, E. Hernández-García.
EOF analysis of satellite and simulation data of the Mediterranean Sea. (P)
7th Geophysical and Environmental Fluid Dynamics Summer School, Cambridge, Gran Bretaña,
Septiembre 1997.
48. E. Hernández-García, A. Amengual, R. Montagne, M. San Miguel, P. Colet, M. Hoyuelos.
Spatiotemporal intermittency in a complex Ginzburg-Landau equation. (P)
Patterns, non-linear dynamics and stochastic behaviour in spatially extended, complex systems
(PNS'97). Budapest (Hungría), Octubre 1997.

49. V.M. Eguíluz, E. Hernández-García, O. Piro, S. Balle.
Boundary induced frozen chaos. (P)
Patterns, non-linear dynamics and stochastic behaviour in spatially extended, complex systems (PNS'97). Budapest (Hungría), Octubre 1997.
50. V.M. Eguíluz, E. Hernández-García, O. Piro, S. Balle.
Boundary induced frozen chaos. (P)
7th Workshop on Instabilities and Nonequilibrium Structures. Valparaíso (Chile), Diciembre 1997.
51. E. Hernández-García, A. Amengual, R. Montagne, M. San Miguel, P. Colet, M. Hoyuelos, D. Walgraef.
Spatiotemporal intermittency in a complex Ginzburg-Landau equation. (P)
7th Workshop on Instabilities and Nonequilibrium Structures. Valparaíso (Chile), Diciembre 1997.
52. C. López, E. Hernández-García.
Empirical orthogonal function analysis of altimetry data of the Algerian current: towards a low-dimensional dynamical system model. (P)
XXIII General Assembly of the European Geophysical Society. Nice (Francia), Abril 1998.
53. E. Hernández-García, A. Amengual, R. Montagne, M. San Miguel, M. Hoyuelos, P. Colet.
Spatiotemporal chaos in polarized light waves. (P)
Euroconference on Patterns in Nonlinear Optical Systems. Alicante, Mayo 1998.
54. V. M. Eguíluz, E. Hernández-García, O. Piro.
Boundary effects in the complex Ginzburg-Landau equation.
Synchronization, Pattern Formation, and Spatio-Temporal Chaos in Coupled Chaotic Oscillators. Santiago de Compostela, Junio 1998.
55. E. Hernández-García, M. Hoyuelos, P. Colet, R. Montagne, M. San Miguel.
Spatiotemporal chaos, localized structures, and synchronization in the vector complex Ginzburg-Landau equation.
Synchronization, Pattern Formation, and Spatio-Temporal Chaos in Coupled Chaotic Oscillators. Santiago de Compostela, Junio 1998.
56. V. Martínez-Eguíluz, E. Hernández-García, O. Piro, P. Alstrom.
Boundary induced average patterns and frozen chaos. (P)
STATPHYS 20, XX IUPAP International Conference on Statistical Physics. Paris (Francia), Julio 1998.
57. E. Hernández-García, A. Álvarez, J. Tintoré.
Noise rectification in quasigeostrophic forced turbulence. (P)
STATPHYS 20, XX IUPAP International Conference on Statistical Physics. Paris (Francia), Julio 1998.
58. R. Montagne, V. Caselles, E. Hernández-García, M. San Miguel.
Localized solutions in coupled complex Ginzburg-Landau equations. (P)
STATPHYS 20, XX IUPAP International Conference on Statistical Physics. Paris (Francia), Julio 1998.
59. E. Hernández-García, A. Amengual, R. Montagne, M. San Miguel, M. Hoyuelos, P. Colet.
Spatiotemporal Chaos in Polarized Light Waves.
CLEO/EQEC. Glasgow, Gran Bretaña, Septiembre 1998.
60. J. Tintoré, M. Riera, V. Fernández, E. Hernández-García, A. Álvarez, D. Gomis, S. Monserrat, C. Reus, P. Ballester, J.L. López-Jurado, X. Jansà, J. Font.
Interaction between local, sub-basin and basin scale dynamics in the western Mediterranean: observations and modelling.
3rd Mediterranean Target Project Meeting. Rhodes, Grecia, Octubre 1998.
61. A. Álvarez, E. Hernández-García, J. Tintoré.
Large scale circulations induced by small and mesoscale forcings.
XXIV General Assembly of the European Geophysical Society. The Hague, Holanda, Abril 1999.
62. Z. Neufeld, C. López, P.H. Haynes, E. Hernández-García.
Smooth-filamental transition of active tracer fields stirred by chaotic advection. (P)
XXIV General Assembly of the European Geophysical Society. The Hague, Holanda, Abril 1999.

63. C. López, Z. Neufeld, E. Hernández-García, P.H. Haynes.
Transición suave filamentosa para estructuras espaciales de trazadores químicamente activos mezclados por advección caótica. (P)
VIII Congreso de Física Estadística, FISES'99. Santander, Mayo 1999.
64. R. Toral, C.R. Mirasso, E. Hernández-García, O. Piro.
Synchronization of chaotic systems by common random forcing. (P)
VIII Congreso de Física Estadística, FISES'99. Santander, Mayo 1999.
65. E. Hernández-García, M. Hoyuelos, P. Colet, M. San Miguel.
Spatiotemporal chaos in the vector complex Ginzburg-Landau equation. (P)
VIII Congreso de Física Estadística, FISES'99. Santander, Mayo 1999.
66. V.M. Eguíluz, E. Hernández-García, O. Piro.
Paredes y esquinas en la dinámica de medios auto-oscilantes. (P)
VIII Congreso de Física Estadística, FISES'99. Santander, Mayo 1999.
67. V.M. Eguíluz, E. Hernández-García, O. Piro.
Boundary effects on complex Ginzburg-Landau dynamics. (P)
Fifth SIAM Conference on Applications of Dynamical Systems 1999. Snowbird, Utah, USA, Mayo 1999.
68. E. Hernández-García, P. Colet, M. San Miguel, M. Hoyuelos.
Defect dynamics in the vector complex Ginzburg-Landau equation. (P)
Fifth SIAM Conference on Applications of Dynamical Systems 1999. Snowbird, Utah, USA, Mayo 1999.
69. M. Santagiustina, M. San Miguel, E. Hernández-García, G-L. Oppo, A. Scroggie.
Dynamics and stabilization of vectorial defects in type-II optical parametric oscillators. (P)
Quantum Optics X, Mallorca, Octubre 1999.
70. Víctor M. Eguíluz, Emilio Hernández-García, and Oreste Piro.
Boundary effects in extended dynamical systems. (P)
LAWN'99, Córdoba, Argentina, 1999.
71. M. Santagiustina, M. San Miguel, Emilio Hernández-García, G-L. Oppo, A. Scroggie.
Dynamics and stabilization of vectorial defects in type-II optical parametric oscillators. (P)
COCOS 99, Münster, Alemania, 1999.
72. A. Álvarez, C. López, M. Riera, E. Hernández-García, J. Tintoré.
A satellite based ocean forecasting system using genetic algorithms. (P)
XXV General Assembly of the European Geophysical Society. Nice, Francia, Abril 2000.
73. C. López, E. Hernández-García, O. Piro, A. Vulpiani, E. Zambianchi.
Spatial inhomogeneities in discrete predator-prey models advected by chaotic flows. (P)
XXV General Assembly of the European Geophysical Society. Nice, Francia, Abril 2000.
74. A. Orfila, A. Álvarez, J. Tintoré, E. Hernández-García.
Extracting dynamics from empirical data: an evolutionary computation approach.
XXV General Assembly of the European Geophysical Society. Nice, Francia, Abril 2000.
75. Cristóbal López, E. Hernández-García, A. Álvarez.
Predicción de dinámica espaciotemporal mediante algoritmos genéticos. (P)
NoLineal2000. Almagro (Ciudad Real). Mayo 2000.
76. M. Santagiustina, E. Hernández-García, M. San Miguel, G-L. Oppo, A. Scroggie.
Vectorial Vortices in Type-II Optical Parametric Oscillators.
CLEO/EUROPE IQEC 2000. Nice, Francia, Septiembre 2000.
77. Cristóbal López, Zoltán Neufeld, Emilio Hernández-García, Oreste Piro, Angelo Vulpiani, E. Zambianchi.
Estructuras espaciales en modelos de transporte de plancton. (P)
FISES2000. Santiago de Compostela. Septiembre 2000.

78. Cristóbal López, Alberto Álvarez, Emilio Hernández-García, Margalida Riera, Joaquín Tintoré.
Predicción de dinámica espaciotemporal mediante algoritmos genéticos. (P)
FISES2000. Santiago de Compostela. Septiembre 2000.
79. V. Pérez-Muñuzuri, I. Sendiña-Nadal, V.M. Eguíluz, E. Hernández-García, O. Piro.
Cuasiperiodicidad en sistemas excitables inducida por un contorno ondulado. (P)
FISES2000. Santiago de Compostela. Septiembre 2000.
80. M. Santagiustina, G. Izús, M. San Miguel, E. Hernández-García, G. L. Oppo and A. Scroggie.
Vectorial defects and Bloch Polarization Domain Walls in Optical Parametric Oscillators.
Interdisciplinary International Conference PELS-2000: Polarization effects in lasers, spectroscopy
and optoelectronics. Southampton (Inglaterra), Septiembre 2000
81. A. Álvarez, E. Hernández-García, J. Tintoré.
*The effect of small scale ocean processes on topographically induced currents in a quasigeostrophic
baroclinic ocean.*
XXVI General Assembly of the European Geophysical Society. Nice (Francia), Marzo 2001.
82. C. López, E. Hernández-García, Z. Neufeld.
Lagrangian studies of chaotic advection of decaying substances: the rôle of diffusion. (P)
XXVI General Assembly of the European Geophysical Society. Nice (Francia), Marzo 2001.
83. V.M. Eguíluz, E. Hernández-García, O. Piro.
Wall effects on nonlinear dissipative waves in oscillating media. (P)
Waves and Wave Turbulence. Nyborg (Dinamarca), Agosto 2001.
84. G. Basterretxea, A. Orfila, A. Jordi, A. Álvarez, E. Hernández-García, J. Tintoré.
Satellite Ocean Forecasting sysTem (SOFT): A new tool to predict ocean variability.
3 Asamblea Hispano Portuguesa de Geodesia y Geofísica. Valencia. Febrero 2002.
85. E. Hernández-García, O. Piro, Z. Neufeld, C. López.
Medios excitables en flujos caóticos. (P)
FISES2002. Tarragona. Mayo 2002.
86. J.G. Schneider, V. Fernández, E. Hernández-García
Visualization techniques for geophysical flows (P)
European Geophysical Society/American Geophysical Union Joint Assembly. Nice (Francia). Abril
2003.
87. J.G. Schneider, V. Fernández, E. Hernández-García
Open flow approach to the stable and unstable foliation of the Mediterranean Sea (P)
European Geophysical Society/American Geophysical Union Joint Assembly. Nice (Francia). Abril
2003.
88. Emilio Hernández-García and Cristóbal López
*Brownian bug models with neighborhood-dependent reproduction rate: Continuum description and
pattern formation* (P)
FISES2003. Pamplona. Octubre 2003.
89. Francesco d'Ovidio, Vicente Fernández, Emilio Hernández-García, Cristóbal López
Finite-size Lyapunov exponents of surface velocity data of the Mediterranean Sea (P)
III Jornades de la Xarxa Temàtica *Nonlinear Dynamics of Spatio-Temporal Selforganization*. Barcelona.
Febrero 2004.
90. Cristóbal López and Emilio Hernández-García
Agregación en modelos de individuos con interacciones no locales
III Jornades de la Xarxa Temàtica *Nonlinear Dynamics of Spatio-Temporal Selforganization*. Barcelona.
Febrero 2004.
91. F. d'Ovidio, V. Fernández, E. Hernández-García, and C. López
Finite-size Lyapunov exponents and mixing in the Mediterranean Sea
1st General Assembly of the European Geosciences Union. Nice (Francia). Abril 2004.

92. J.G. Schneider, V. Fernández and E. Hernández-García
Water exchanges in the upper Western Mediterranean: Seasonal variability and transport routes (P)
1st General Assembly of the European Geosciences Union. Nice (Francia). Abril 2004.
93. J.G. Schneider, V. Fernández and E. Hernández-García
Routes of transport of passive particles in the Mediterranean (P)
1st General Assembly of the European Geosciences Union. Nice (Francia). Abril 2004.
94. F. d'Ovidio, V. Fernández, E. Hernández-García, C. López
Mesoscale Mixing and transport in the Mediterranean Sea by Finite-Size Lyapunov Exponents calculations
Dynamics Days 2004. Palma de Mallorca. Septiembre 2004.
95. J. Isern, E. García-Ladona, F. d'Ovidio, E. Hernández-García and C. López
Transport and mixing in the Mediterranean Sea: Comparison between Okubo-Weiss and finite size Lyapunov exponents calculation (P)
2nd General Assembly of the European Geosciences Union. Viena (Austria). Abril 2005.
96. F. d'Ovidio, C. López, E. Hernández-García, J. Isern-Fontanet and E. García-Ladona
Estimating chlorophyll and sea surface temperature patterns from altimetry data
2nd General Assembly of the European Geosciences Union. Viena (Austria). Abril 2005.
97. A. M. Mancho, E. Hernández-García, S. Wiggins, D. Small and V. Fernández
Lobe dynamics and transport predictions across the North-East Balearic front (O & P)
3rd LAPCOD (Lagrangian Analysis and Prediction of Coastal and Ocean Dynamics) Meeting, Lerici (Italia) Junio 2005.
98. C. López, F. d'Ovidio, E. Hernández-García and V. Fernández
Transport and mixing in the Mediterranean sea by Finite Size Lyapunov Exponents
3rd LAPCOD (Lagrangian Analysis and Prediction of Coastal and Ocean Dynamics) Meeting, Lerici (Italia) Junio 2005.
99. C. López, E. Hernández-García, M. A. Muñoz
Brownian bug models with neighborhood-dependent reproduction rate: Critical properties (P)
FISES2005, XIII Congreso de Física Estadística. Madrid, Junio 2005.
100. F. d'Ovidio, C. López, E. Hernández-García
Mixing structures in the Mediterranean Sea (P)
FISES2005, XIII Congreso de Física Estadística. Madrid, Junio 2005.
101. A. F. Rozenfeld, V.M. Eguíluz, E. Hernández-García, M. A. Matías, C. M. Duarte, S. Arnaud-Haond
Network approach to the genetic relationships between clonal plants (P)
Dynamics Days 2005, Berlin (Alemania), Julio 2005.
102. M. Sandulescu, C. López, E. Hernández-García, U. Feudel
Transport enhancement by the wake of an island (P)
Dynamics Days 2005, Berlin (Alemania), Julio 2005.
103. C. López, E. Hernández-García, F. d'Ovidio, J. Isern-Fontanet, E. Garcia-Ladona
Transport and mixing in the Mediterranean Sea: Comparison between Okubo-Weiss and finite size Lyapunov exponents calculation. (P)
IV Jornades de la Xarxa Temàtica Nonlinear Dynamics of Spatio-Temporal Selforganization, Barcelona, Febrero 2006.
104. M. Sandulescu, C. López, E. Hernández-García, U. Feudel
Transport enhancement by the wake of an island (P)
IV Jornades de la Xarxa Tematica Nonlinear Dynamics of Spatio-Temporal Selforganization, Barcelona, Febrero 2006.
105. A. F. Rozenfeld, V.M. Eguíluz, E. Hernández-García, M. A. Matías, C. M. Duarte, S. Arnaud-Haond
Network approach to the genetic relationships between clonal plants (P)
IV Jornades de la Xarxa Tematica Nonlinear Dynamics of Spatio-Temporal Selforganization, Barcelona, Febrero 2006.

106. F. d'Ovidio, B. Legras, E. Hernández-García, C. López, E. García-Ladona, J. Isern-Fontanet, M. Lévi, Y. Lehahn
Transport and mixing properties of observational datasets from finite-size Lyapunov exponent calculations
3rd General Assembly of the European Geosciences Union. Viena (Austria). Abril 2006.
107. M. Sandulescu, C. López, E. Hernández-García, U. Feudel
Simple modelling of the biological activity at the Canary Islands
3rd General Assembly of the European Geosciences Union. Viena (Austria). Abril 2006.
108. A. F. Rozenfeld, S. Arnaud-Haond, E. Hernández-García, V.M. Eguíluz, M. A. Matías, E. Serrão and C. M. Duarte
Genetic similarity networks in clonal plant populations (P)
FISES2006, XIV Congreso de Física Estadística. Granada, Septiembre 2006.
109. M. Sandulescu, C. López, E. Hernández-García, U. Feudel
Transport enhancement by the wake of an island (P)
FISES2006, XIV Congreso de Física Estadística. Granada, Septiembre 2006.
110. A. Jacobo, P. Colet and E. Hernández-García
Jump detection in ecological data series using nonlinear dynamics of extended systems (P)
FISES2006, XIV Congreso de Física Estadística. Granada, Septiembre 2006.
111. E. A. Herrada, V. M. Eguíluz, E. Hernández-García and C. M. Duarte
Scaling properties of intraspecific and interspecific phylogenies in the tree of life (P)
FISES2006, XIV Congreso de Física Estadística. Granada, Septiembre 2006.
112. E. A. Herrada, V. M. Eguíluz, E. Hernández-García and C. M. Duarte
Scaling properties of intraspecific and interspecific phylogenies in the tree of life (P)
10th Evolutionary Biology Meeting. Marseille (Francia), Septiembre 2006.
113. E. A. Herrada, V. M. Eguíluz, E. Hernández-García and C. M. Duarte
Scaling properties in the Tree of Life
Workshop on Social and Ecological Networks, European Conference on Complex Systems (ECCS06). Oxford, Gran Bretaña, Septiembre 2006.
114. E. A. Herrada, C.R. Tessone, V. M. Eguíluz, E. Hernández-García and C. M. Duarte
Scaling properties of intraspecific and interspecific phylogenies in the tree of life (P)
MEDYFINOL'06: XV Meeting on Nonequilibrium Statistical Mechanics and Nonlinear Physics. Mar del Plata, Argentina, Diciembre 2006.
115. A. Jacobo, P. Colet and E. Hernández-García
ThEnhancer, a computer program to detect jumps in ecological time series (P)
2nd Annual Assembly of the THRESHOLDS Integrated Project. Helsinki, Finlandia, Enero 2007.
116. M. Sandulescu, C. Lopez, E. Hernández-García, U. Feudel
Biological activity in the wake of an island close to a coastal upwelling
European Geosciences Union General Assembly 2007. Viena(Austria), Abril 2007.
117. V. Rossi, C. López, J. Sudre, E. Hernández-García, V. Garçon
Spatio-temporal variations of stirring in the surface ocean of the Canary, Benguela, Humboldt and Iberian peninsula upwellings
EurOceans General Assembly, Atenas(Grecia), Abril 2007.
118. J.-M. Zaldívar-Comenges, F.S. Bacelar, S. Dueri, E. Hernández-García, P. Viaroli
A modelling approach to nutrient-driven regime shifts in shallow coastal systems: competition between seagrass and macroalgae (P)
6th International Congress on Industrial and Applied Mathematics (ICIAM07). Zürich, (Suiza), Julio 2007.
119. C. López, S. Pigolotti, E. Hernández-García
Species clustering in competitive Lotka Volterra models (P)
23rd International Conference on Statistical Physics (STATPHYS 23), Genova (Italia), Julio 2007.

120. F.S. Bacelar, J.-M. Zaldivar-Comenges, S. Dueri, E. Hernández-García,
Regime changes in competing floating-submerged plant ecosystems (P)
European Conference on Complex Systems (ECCS07). Dresden, Alemania, Octubre 2007.
121. E. Hernández-García, A. F. Rozenfeld, S. Arnaud-Haond, V.M. Eguíluz, E. Serrão and C. M. Duarte
Genetic similarity networks: Weak and strong links in populations and in metapopulations (P)
European Conference on Complex Systems (ECCS07). Dresden, Alemania, Octubre 2007.
122. E. A. Herrada, C.J. Tessone, V. M. Eguíluz, E. Hernández-García and C. M. Duarte
Universal scaling in phylogenetic branching (P)
European Conference on Complex Systems (ECCS07). Dresden, Alemania, Octubre 2007.
123. The EDEN team
Ecological Diversity and Evolutionary Networks: The EDEN project (P)
Showcase of European Complexity Science Projects (CRP Forum). Dresden, Alemania, Octubre 2007.
124. J.M. Zaldívar, D. Marinov, F. Somma, F.S. Bacelar, E. Hernández-García, I. Puillat-Felix, and P. Viaroli
Nutrient driven regime shifts in coastal lagoons: a 3d modelling approach
3rd European Conference on Lagoon Research, Nápoles, Italia, Noviembre 2007.
125. A. Murza, N. Komin, T. Pérez, C. Mirasso, E. Hernández-García, Raúl Toral
The role of light - dark cycle and constructive diversity in synchronizing circadian oscillators (P)
EUFEPS (European Federation for Pharmaceutical Sciences) Conference on Optimising Drug Discovery and Development, Basel, Suiza, Diciembre 2007.
126. J.M. Zaldívar, D. Marinov, S. Dueri, I. Puillat-Felix, F. Somma, F.S. Bacelar, E. Hernández-García and P. Viaroli
Nutrient and temperature driven regime shifts in coastal lagoons: A 3D modelling approach
3rd Annual Assembly of the THRESHOLDS Integrated Project. Roma, Italia, Enero 2008.
127. E. A. Herrada, C.J. Tessone, K. Klemm, V.M. Eguíluz, E. Hernández-García, C.M. Duarte
From genes to species: Universal scaling?
Workshop on Dynamics and Evolution of Biological and Social Networks. Palma de Mallorca, España, Febrero 2008.
128. E. A. Herrada, C.J. Tessone, V. M. Eguíluz, E. Hernández-García and C. M. Duarte
Scaling properties in protein evolution (P)
FISES2008, XV Congreso de Física Estadística. Salamanca, Marzo 2008.
129. F.S. Bacelar, J.-M. Zaldívar-Comenges, S. Dueri, E. Hernández-García
Regime changes in competing floating-submerged plant ecosystems (P)
FISES2008, XV Congreso de Física Estadística. Salamanca, Marzo 2008.
130. F.S. Bacelar, S. Dueri, E. Hernández-García, J.-M. Zaldívar-Comenges,
Join effects of nutrients and contaminants on the dynamics of a food chain in marine ecosystems (P)
FISES2008, XV Congreso de Física Estadística. Salamanca, Marzo 2008.
131. V. Rossi, C. López, J. Sudre, E. Hernández-García, V. Garçon
Mixing, Lyapunov exponents, and biological activity in the Benguela and the Canary upwelling systems
European Geosciences Union General Assembly 2008. Viena(Austria), Abril 2008.
132. V. Rossi, C. López, J. Sudre, E. Hernández-García, V. Garçon
A comparative study of the Benguela and the Canary upwelling systems (P)
4th IGBP Congress, Sustainable Livelihoods in a Changing Earth System, Capetown (South-Africa), Mayo 2008.
133. Emilio Hernández-García Alejandro F. Rozenfeld, Sophie Arnaud-Haond, Víctor M. Eguíluz, Ester Serrão and Carlos M. Duarte
Networks of Genetic Similarity in Populations and in Metapopulations (P)
International Conference "Modelling and Computation on Complex Networks and Related Topics", Net-Works 2008. Pamplona, España, Junio 2008.

134. E. Hernández-García, V. Rossi, C. López, J. Sudre, V. Garçon
Mixing, Lyapunov exponents, and biological activity in the Benguela and the Canary upwelling systems (P)
Nonlinear Processes in Oceanic and Atmospheric Flows, NLOA2008. Castro Urdiales, España, Julio 2008.
135. I. Hernández-Carrasco, C. López, E. Hernández-García, A. Turiel
Statistical properties and robustness of dispersion from surface velocity data(P)
Nonlinear Processes in Oceanic and Atmospheric Flows, NLOA2008. Castro Urdiales, España, Julio 2008.
136. U. Feudel, M. Sandulescu, J.C. Zahn, C. López, E. Hernández-García, T. Tél, R.D. Vilela
Interplay between hydrodynamic motion and biological activity: Plankton blooms and marine aggregates
Nonlinear Processes in Oceanic and Atmospheric Flows, NLOA2008. Castro Urdiales, España, Julio 2008.
137. V. Garçon, V. Rossi, C. López, J. Sudre, E. Hernández-García
Marine ecosystem dynamics and horizontal stirring and mixing
Nonlinear Processes in Oceanic and Atmospheric Flows, NLOA2008. Castro Urdiales, España, Julio 2008.
138. S. Wiggins, A. Mancho, D. Small, E. Hernández-García, V. Fernández, M. Branicki
The Dynamical Systems Approach to Transport Associated with Fronts and Eddies in a Realistic Numerical Model of Flow in the Northwest Mediterranean
Nonlinear Processes in Oceanic and Atmospheric Flows, NLOA2008. Castro Urdiales, España, Julio 2008.
139. I. Hernández-Carrasco, C. López, E. Hernández-García, A. Turiel
Statistical properties and robustness of dispersion from surface velocity data(P)
Dynamics of Inertial Particles: From Ocean and Atmosphere to Planets. Dresden, Alemania, Septiembre 2008.
140. A. Murza, S. Bernard, N. Komin, T. Pérez, E. Hernández-García, R. Toral
The role of light-dark cycle, constructive diversity and coupling symmetries in synchronizing circadian oscillators (P)
4th BioSim Conference. Budapest, Hungría, Septiembre 2008.
141. I. Hernández-Carrasco, C. López, E. Hernández-García, A. Turiel
Extremes of stretching in ocean flow: Intermittency and its impact in transport and mixing (P)
Extreme Events: Theory, Observations, Modeling and Prediction. Palma de Mallorca, España, Noviembre 2008.
142. M. Patriarca, R. Toral, E. Hernández-García
Diversity in a neuronal model for the wake-sleep cycle
BioSim workshop on Methodological Challenges for Systems Biology: linking networks, crossing scales. Venecia, Italia, 30 Marzo -3 Abril 2009
143. I. Hernández-Carrasco, E. Hernández-García, C. López, A. Turiel
Statistical properties and robustness of dispersion measurements from surface velocity data (P)
European Geosciences Union General Assembly 2009. Viena(Austria), Abril 2009.
144. V. Rossi, E. Tewkai, C. López, J. Sudre, E. Hernández-García, V. Garçon
Marine ecosystem dynamics, ocean circulation and horizontal stirring
European Geosciences Union General Assembly 2009. Viena(Austria), Abril 2009.
145. M. Patriarca, R. Toral, E. Hernández-García
Effect of diversity in a neuronal model for the sleep-wake cycle
5th Conference of the BioSim Network of Excellence. Copenhagen, (Dinamarca). Agosto 2009.
146. A. Murza, N. Komin, E. Hernández-García, R. Toral
Synchronization of coupled circadian oscillators (P)
5th BioSim Conference. Copenhagen, Dinamarca, Agosto 2009.

147. I. Hernández-Carrasco, E. Hernández-García, C. López, A. Turiel
Reliability of a Lagrangian analysis from FSLEs (& P)
Lagrangian Analysis and Prediction of Coastal and Ocean Dynamics (LAPCOD) 2009. La Londe-des-Maures, Francia, Septiembre 2009.
148. M. Patriarca, E. Hernández-García, R. Toral ,
Role of diversity in a neuronal model of wake-sleep cycle (P)
FISES2009, XVI Congreso de Física Estadística. Huelva, Septiembre 2009.
149. F.S. Bacelar, J. Calabrese, V. Grimm, E. Hernández-García ,
Savanna-Fire Model: Combined effects of tree-tree establishment competition and spatially explicit fire on the spatial pattern of trees in savannas (P)
FISES2009, XVI Congreso de Física Estadística. Huelva, Septiembre 2009.
150. E. Heinsalu, E. Hernández-García, C. López ,
Nonlocally interacting particle systems: Lévy flights versus Gaussian jumps (P)
FISES2009, XVI Congreso de Física Estadística. Huelva, Septiembre 2009.
151. N. Komin, A. Murza, R. Toral, E. Hernández-García,
Constructive effects of diversity in the synchronisation of a model for the circadian clock in mammals (P)
FISES2009, XVI Congreso de Física Estadística. Huelva, Septiembre 2009.
152. I. Hernández-Carrasco, E. Hernández-García, C. López, A. Turiel
Scaling and robustness of finite-size Lyapunov exponents in surface marine flows (P)
FISES2009, XVI Congreso de Física Estadística. Huelva, Septiembre 2009.
153. Raúl Toral, Miguel Pineda, and Emilio Hernández-García
Role of noise in a continuous opinion model (P)
FISES2009, XVI Congreso de Física Estadística. Huelva, Septiembre 2009.
154. Stephanie Keller-Schmidt, Murat Tuğrul, Víctor M. Eguíluz, Emilio Hernández-García, Konstantin Klemm
Shapes of Phylogenetic Trees: Age Model and Likelihoods (P)
International Workshop on *150 Years after Darwin: From Molecular Evolution to Language*. Trends in Complex Systems series. Palma de Mallorca, Noviembre 2009.
155. Murat Tuğrul, Stephanie Keller-Schmidt, Víctor M. Eguíluz, Emilio Hernández-García, Konstantin Klemm
Can Age Explain Macroevolution? (P)
International Workshop on *150 Years after Darwin: From Molecular Evolution to Language*. Trends in Complex Systems series. Palma de Mallorca, Noviembre 2009.
156. I. Hernández-Carrasco, E. Hernández-García, C. López, A. Turiel
How reliable are Finite-Size Lyapunov Exponents for the assessment of ocean evolution? (P)
European Geosciences Union General Assembly 2010. Viena(Austria), Mayo 2010.
157. Flora S. Bacelar, Justin Calabrese, Volker Grimm, Emilio Hernández-García
Savanna-Fire Model: Combined effects of tree-tree establishment competition and spatially explicit fire on the spatial pattern of trees in savannas
CMPD 3: Conference on Computational and Mathematical Population Dynamics. Bordeaux, Francia, Junio 2010.
158. João Bettencourt, Cristóbal López, Emilio Hernández-García
Coherent Structures in a Three Dimensional Turbulent Velocity Field (P)
International Workshop on *Living organisms on flows (Orflow10)*. Trends in Complex Systems series. Palma de Mallorca, Junio 2010.
159. I. Hernández-Carrasco, E. Hernández-García, C. López, A. Turiel
Reliability of Lagrangian diagnosis from finite-size Lyapunov exponents. (P)
International Workshop on *Living organisms on flows (Orflow10)*. Trends in Complex Systems series. Palma de Mallorca, Junio 2010.

160. M. Patriarca, E. Hernández-García, R. Toral, S. Postnova, H.A. Braun
Diversity effects in a homeostatic model of the wake-sleep cycle
STATPHYS 24, The XXIV International Conference on Statistical Physics of the International Union for Pure and Applied Physics (IUPAP), Cairns, Queensland (Australia), Julio 2010.
161. E. Heinsalu, E. Hernández-García, C. López
Nonlocally interacting particle systems: Levy flights versus Gaussian jumps (P)
STATPHYS 24, The XXIV International Conference on Statistical Physics of the International Union for Pure and Applied Physics (IUPAP), Cairns, Queensland (Australia), Julio 2010.
162. Flora S. Bacelar, Justin Calabrese, Emilio Hernández-García
Combined effects of tree-tree establishment competition and spatially explicit fire on the spatial pattern of trees in savannas (P)
Emergence and Design Robustness (ROBUST). Palma de Mallorca, Septiembre 2010.
163. M. Pineda, R. Toral, E. Hernández-García
Noisy continuous-opinion dynamics (P)
Emergence and Design Robustness (ROBUST). Palma de Mallorca, Septiembre 2010.
164. N. Komin, A. Murza, R. Toral, E. Hernández-García
Synchronization properties of coupled circadian oscillators (P)
Emergence and Design Robustness (ROBUST). Palma de Mallorca, Septiembre 2010.
165. M. Patriarca, E. Hernández-García, R. Toral, S. Postnova, H.A. Braun
Noise and diversity effects in a homeostatic model of wake-sleep cycle
Emergence and Design Robustness (ROBUST). Palma de Mallorca, Septiembre 2010.
166. I. Hernández-Carrasco, C. López, E. Hernández-García, V. Rossi, V. Garçon
Transport of plankton in the Benguela upwelling system (P)
Anomalous Transport: from Billiards to Nanosystems. Sperlonga, Italia, Septiembre 2010.
167. J. Bettencourt, C. López, E. Hernández-García
Coherent Structures in a Three Dimensional Velocity Field (P)
Anomalous Transport: from Billiards to Nanosystems. Sperlonga, Italia, Septiembre 2010.
168. C. López, E. Heinsalu, E. Hernández-García
Spatial clustering of interacting particles: Levy flights versus Gaussian jumps (P)
Statistical Physics of Collective Motion. Dresden, Alemania, Noviembre 2010.
169. I. Hernández-Carrasco, C. López, E. Hernández-García, A. Turiel
Horizontal Stirring in the global ocean (P)
Coherent Structures in Dynamical Systems. Leiden, Holanda, Mayo 2011.
170. J. Bettencourt, C. López, E. Hernández-García
Coherent structures in three-dimensional flows (P)
Coherent Structures in Dynamical Systems. Leiden, Holanda, Mayo 2011.
171. E. Hernández-García, S. Keller-Schmidt, M. Tuğrul, V.M. Eguíluz, K. Klemm
An Age-Dependent Branching Model for Macroevolution (P)
FISES2011, XVII Congreso de Física Estadística. Barcelona, Junio 2011.
172. Ismael Hernández-Carrasco, Vincent Rossi, Cristóbal López, Emilio Hernández-García, Joel Sudre Veronique Garçon
Simulation of plankton dynamics in the turbulent Benguela upwelling system (P)
3rd 'Advances in Marine Ecosystem Modelling Research Symposium' (AMEMR III), Plymouth, Gran Bretaña, Junio 2011.
173. Cristóbal López, João Bettencourt, Emilio Hernández-García
Three-dimensional oceanic coherent structures
Dynamics Days Europe 2011, Oldenburg, Alemania, Septiembre 2011.
174. Emilie Tew-Kai, Joel Sudre, David Gremillet, Hussein Yahia, Vincent Rossi, Emilio Hernández-García, Cristóbal López, Francis Marsac, Henri Weimerskirch, Véronique Garçon
Impact of oceanic submesoscale coherent structures on marine top predators: new tools and challenges
American Geophysical Union (AGU) Fall meeting 2011 (Session OS04: Recent Advances in Satellite Oceanography), San Francisco, USA, Diciembre 2011.

175. J. H. Bettencourt, C. López, and E. Hernández-García
Oceanic three-dimensional Lagrangian Coherent Structures in the Benguela ocean region. (P)
European Geosciences Union General Assembly 2012. Viena(Austria), Abril 2012.
176. C. López, E. Heinsalu, E. Hernández-García
Competitive Brownian and Lévy walkers
Search and stochastic phenomena in complex physical and biological systems. Palma de Mallorca, Mayo -Junio 2012.
177. M. Tugrul, E. Hernández-García, V.M. Eguíluz, S. Keller-Schmidt, K. Klemm
Branching models with distributed ages for macroevolution (P)
International Conference on Delayed Complex Systems (DCS 2012). Palma de Mallorca, Junio 2012.
178. A.P. Masucci, K. Alkiviadis, V.M. Eguíluz, E. Hernández-García
Wikipedia Information Flow Analysis Reveals the Scale-Free Architecture of the Semantic Space
NetSci. Evanston IL (USA), Junio 2012.
179. J.H. Bettencourt, C. López, E. Hernández-García
Estructuras Lagrangeanas Coerentes na mesoescala oceánica
Encontro de Oceanografia Física. Figueira da Foz Portugal, Junio 2012.
180. G. Manzano, F. Galve, G. Giorgi, P. Colet, E. Hernández-García, R. Zambrini
From classical to quantum synchronization
Quantum Twin Workshops 2012. Favignana (Trapani), Italia, Junio 2012.
181. E. Hernández-García, J.H. Bettencourt, C. López,
Coherent Structures in Three-Dimensional Flows (P)
2nd International Workshop on "Nonlinear Processes in Oceanic and Atmospheric Flows", Julio 2012.
182. C. López, I. Hernández-Carrasco, V. Rossi, J. Sudre, E. Hernández-García, V. Garçon.
Reduction of biological production due to vigorous horizontal mixing in the Benguela upwelling system (P)
2nd International Workshop on "Nonlinear Processes in Oceanic and Atmospheric Flows", Julio 2012.
183. J.H. Bettencourt, C. López, E. Hernández-García
Mesoscale three-dimensional Lagrangian Coherent Structures
2nd International Workshop on "Nonlinear Processes in Oceanic and Atmospheric Flows", Julio 2012.
184. E. Hernández-García, I. Hernández-Carrasco, V. Rossi, V. Garçon, C. López
Biological production and plankton dynamics in a turbulent ocean upwelling system (P)
FISES2012, XVIII Congreso de Física Estadística. Palma de Mallorca, Octubre 2012.
185. C. López, J. H. Bettencourt, E. Hernández-García
Lagrangian Coherent Structures in three-dimensional flows (P)
FISES2012, XVIII Congreso de Física Estadística. Palma de Mallorca, Octubre 2012.
186. R. Zambrini, G. Manzano, G. Giorgi, F. Galve, P.Colet, E. Hernández-García
Synchronization and quantum correlations in networks (P)
FISES2012, XVIII Congreso de Física Estadística. Palma de Mallorca, Octubre 2012.
187. M. Patriarca, S. Postnova, H.A. Braun, E. Hernández-García and R. Toral
Modelling the homeostatic regulation of the sleep-wake cycle: role of diversity
2012 International Symposium on Nonlinear Theory and its Applications, NOLTA2012, Palma de Mallorca, Octubre 2012.
188. M. Pineda, R. Toral and E. Hernández-García
Effects of noise on the Hegselmann-Krause model for continuous opinion dynamics (P)
MEDYFINOL 2012: XVII Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics. Santiago, Chile, Diciembre 2012.

189. J. Bettencourt, C. López, E. Hernández-García, I. Montes, J. Sudre, B. Dewitte, A. Paulmier, V. Garçon
Lagrangian variability of the Eastern Tropical Pacific Oxygen Minimum Zone (P)
European Geosciences Union General Assembly 2013. Viena(Austria) Abril 2013.
190. G. Manzano, F. Galve, G.-L. Giorgi, P. Colet, E. Hernandez-Garcia, R. Zambrini
Synchronization and quantum correlations in harmonic networks
CLEO Europe-IQEC Conference 2013. Munich (Alemania), Mayo 2013
191. G. Manzano, F. Galve, G.-L. Giorgi, P. Colet, E. Hernandez-Garcia, R. Zambrini
Synchronization and quantum correlations in harmonic networks (P)
Dynamics Days Europe 2013. Madrid, Junio 2013
192. E. Ser-Giacomi, E. Hernandez-Garcia, C. Lopez
Networks of oceanic transport in the Mediterranean (P)
Dynamics Days Europe 2013. Madrid, Junio 2013
193. G. Manzano, F. Galve, G. Giorgi, P. Colet, E. Hernández-García, R. Zambrini
Synchronization and quantum correlations in networks (P)
Third Summer School on Statistical Physics of Complex and Small Systems. Palma de Mallorca, Septiembre 2013.
194. S. Crespi, J. Bettencourt, C. López and E. Hernández-García
Airflow dynamics models support the hypothesis of the hydrotherapy pool as the source of infection in a travel-associated outbreak of legionnaires' disease (P)
8th International Conference on Legionella. Melbourne, Australia, Octubre 2013.
195. J.H. Bettencourt, C. López, E. Hernández-García, I. Montes, J. Sudre, B. Dewitte, A. Paulmier and V. Garçon
Lagrangian variability of the Eastern Tropical Pacific Oxygen Minimum Zone (P)
A Changing Ocean - EUR-OCEANS Hot Topics Conference, Gran Canaria, Noviembre 2013.
196. I. Hernández-Carrasco, V. Rossi, E. Hernández-García, V. Garçon and C. López
The reduction of plankton biomass induced by mesoscale stirring: a modelling study in the Benguela upwelling (P)
A Changing Ocean - EUR-OCEANS Hot Topics Conference, Gran Canaria, Noviembre 2013.
197. V. Rossi, E. Ser-Giacomi, C. López, E. Hernández-García
Hydrodynamic provinces and oceanic connectivity from a transport network help designing marine reserves.
2014 Ocean Sciences Meeting (AGU/ASLO/TOS), Honolulu, USA. Febrero 2014.
198. E. Ser-Giacomi, E. Hernández-García, C. López and V. Rossi
Geophysical-flow transport networks (P)
World Climate Research Programme (WCRP) Conference for Latin America and Caribbean: Developing, linking and applying climate knowledge. Montevideo, Uruguay, Marzo 2014.
199. E. Ser-Giacomi, E. Hernández-García, C. López and V. Rossi
Networks of fluid transport in the ocean (P)
FISES2014, XIX Congreso de Física Estadística. Ourense, Abril 2014.
200. R. Martínez-García, J. Calabrese, E. Hernández-García, C. Lopez
Vegetation pattern formation in semiarid systems induced by long-range competition in the absence of facilitation mechanisms. (P)
FISES2014, XIX Congreso de Física Estadística. Ourense, Abril 2014.
201. R. Martínez-García, J. Calabrese, E. Hernández-García, C. Lopez
Vegetation pattern formation in semiarid systems induced by long-range competition in the absence of facilitation mechanisms. (P)
European Geosciences Union General Assembly 2014. Viena(Austria) Abril 2014.
202. C. López, V. Rossi, E. Ser-Giacomi, E. Hernández-García,
Oceanic provinces and basin-scale connectivity derived from a hydrodynamical network help designing marine reserves in the Mediterranean Sea.
European Geosciences Union General Assembly 2014. Viena(Austria) Abril 2014.

203. J.H. Bettencourt, C. López, E. Hernández-García, I. Montes, J. Sudre, B. Dewitte, A. Paulmier and V. Garçon
Mesoscale structures as barriers to mixing in the East Tropical Pacific Oxygen Minimum Zone. (P)
46th International Liège Colloquium on Ocean Dynamics: Low Oxygen Environments in Marine, Estuarine and Fresh Waters. Liège, Bélgica, Mayo 2014.
204. S. Potsnova, H.A. Braun, E. Hernández-García, R. Toral, M. Patriarca
Diversity and noise effects in generalized multi-neuron models of homeostatic regulation of the sleep-wake cycle.
International Conference on Statistical Physics 2014, Rhodes, Grecia, Julio 2014.
205. F.S. Bacelar, J. M. Calabrese, E. Hernández-García
Exploring the tug of war between positive and negative interactions among savanna trees: Competition, dispersal, and protection from fire.
MEDYFINOL 2014: XVIII Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics, Maceió, Brasil, Octubre 2014.
206. V. Rossi, M. Dubois, E. Ser-Giacomi, S. Arnaud-Haond, C. López, E. Hernández-García
Linking basin-scale connectivity, oceanography and population dynamics for the management of marine ecosystems in the Mediterranean sea
Ateliers de Modélisation de l'Atmosphère 2015 / Session modélisation climatique régionale intégrée, Toulouse, France, Enero 2015.
207. E. Ser-Giacomi, E. Hernández-García, C. López, V. Rossi, R. Vasile
Lagrangian Flow networks: a new way to characterize transport and connectivity in geophysical flows. (P)
Conference on Complex Networks and Climate Variability, Viena, Austria, Abril 2015.
208. L. Tupikina, N. Molkenthin, E. Hernández-García, C. López, N. Marwan, J. Kurths
Time-dependent flow-networks (P)
Conference on Complex Networks and Climate Variability, Viena, Austria, Abril 2015.
209. V. Martín, E. Hernández-García, M. Barreiro, C. López
Interdecadal variability of the moisture sources during the Austral summertime over Southeastern South America
Conference on Complex Networks and Climate Variability, Viena, Austria, Abril 2015.
210. V. Rodríguez-Méndez, J.J. Ramasco, V.M. Eguíluz, E. Hernández-García
Percolation-based precursors of transitions in dynamical systems.
Conference on Complex Networks and Climate Variability, Viena, Austria, Abril 2015.
211. E. Ser-Giacomi, E. Hernández-García, C. López, V. Rossi, R. Vasile
Lagrangian Flow networks
Conference on Complex Networks and Climate Variability, Viena, Austria, Abril 2015.
212. V. Rossi, E. Ser-Giacomi, E. Hernández-García, C. López, M. Dubois, S. Arnaud-Haond
Linking basin-scale connectivity, oceanography and population dynamics for the management of marine ecosystems
Conference on Complex Networks and Climate Variability, Viena, Austria, Abril 2015.
213. E. Ser-Giacomi, E. Hernández-García, C. López, V. Rossi, R. Vasile
Lagrangian Flow networks: a new way to characterize transport and connectivity in geophysical flows. (P)
European Geosciences Union General Assembly 2015, Viena, Austria, Abril 2015.
214. L. Tupikina, N. Molkenthin, E. Hernández-García, C. López, N. Marwan, J. Kurths
Time-dependent flow-networks (P)
European Geosciences Union General Assembly 2015, Viena, Austria, Abril 2015.
215. V. Rodríguez-Méndez, J.J. Ramasco, V.M. Eguíluz, E. Hernández-García
Percolation-based precursors of transitions in dynamical systems.
European Geosciences Union General Assembly 2015, Viena, Austria, Abril 2015.

216. V. Rossi, M. Dubois, E. Ser-Giacomi, S. Arnaud-Haond, C. López, E. Hernández-García
Linking basin-scale connectivity, oceanography and population dynamics for the management of marine ecosystems
European Geosciences Union General Assembly 2015, Viena, Austria, Abril 2015.
217. M. Patriarca, Els Heinsalu, Emilio Hernández-García and Raúl Toral
Stochastic resonance and diversity-induced resonance in complex systems
7th International Conference on Unsolved Problems on Noise, UPoN2015, Barcelona, Julio 2015.
218. D. Ruiz, D. Gomila, T. Sintes, E. Hernández-García
Continuous model for clonal growth plants(P)
V Summer School on Statistical Physics of Complex and Small Systems, Centre de Recerca Matemàtica, Barcelona, Julio 2015.
219. C. López, E. Ser-Giacomi, I. Recuerda, V. Rossi, R. Vasile, E. Hernández-García.
Lagrangian flow networks: applications to geophysical flows
CONFLOW 2015: Complex network perspectives on flow systems, Potsdam, Alemania, Septiembre 2015.
220. L. Tupikina, N. Molkenhain, E. Hernández-García, C. López, N. Marwan, J. Kurths
Time-dependent correlation flow-networks
CONFLOW 2015: Complex network perspectives on flow systems, Potsdam, Alemania, Septiembre 2015.
221. E. Ser-Giacomi, R. Vasile, E. Hernández-García, C. López
Most probable paths in time-dependent flow networks
CONFLOW 2015: Complex network perspectives on flow systems, Potsdam, Alemania, Septiembre 2015.
222. V. Rossi, M. Hidalgo, M. Dubois, E. Ser-Giacomi, P. Monroy, S. Arnaud-Haond, C. López, E. Hernández-García
Studying connectivity processes and the structural complexity of marine populations using Lagrangian Flow Network: a case study of the European hake in the western Mediterranean Sea
MarCo Annual Meeting, Montpellier, Francia, Septiembre 2015.
223. V. Rossi, M. Dubois, E. Ser-Giacomi, P. Monroy, E. Hernández-García, C. López.
Lagrangian Flow Network: a new tool to evaluate connectivity and understand the structural complexity of marine populations
ICES Annual Science Conference 2015, Copenhagen, Dinamarca, Septiembre 2015.
224. P. Monroy, V. Rossi, C. López and E. Hernández-García
Sinking of Inertial Particles in Ocean Flows (P)
FISES2015, XX Congreso de Física Estadística. Badajoz, Octubre 2015.
225. E. Ser-Giacomi, E. Hernández-García, C. López and V. Rossi
Lagrangian flow networks: a new paradigm to characterize transport phenomena (P)
FISES2015, XX Congreso de Física Estadística. Badajoz, Octubre 2015.
226. V. Rodríguez-Méndez, V.M. Eguíluz, Jose J. Ramasco and E. Hernández-García
Network-based precursors for critical transitions (P)
FISES2015, XX Congreso de Física Estadística. Badajoz, Octubre 2015.
227. V. Rossi, P. Monroy, C. López, E. Hernández-García
Modeling the dynamical sinking of biogenic particles in the ocean (P)
Workshop LEFE-CYBER sur la modélisation, Marseille, Francia, Noviembre 2015.
228. S. Keller-Schmidt, M. Tuğrul, V.M. Eguíluz, E. Hernández-García, K. Klemm
Age-dependent branching as a model of evolutionary trees (P)
NetSci X 2016, International School and Conference on Network Science, Wroclaw, Polonia, Enero 2016.
229. V. Rossi, E. Ser-Giacomi, M. Dubois, P. Monroy, M. Hidalgo, E. Hernández-García, C. López
Lagrangian Flow Networks: a new framework to study the multi-scale connectivity and the structural complexity of marine populations
CIESM International Research Workshop 48: “Marine Connectivity - Migratory routes, stepping stones, larval dispersal”, Söller, Mallorca, Marzo 2016.

230. V. Rossi, E. Ser-Giacomi, P. Monroy, M. Dubois, C. López, E. Hernández-García
Lagrangian Flow Network: theory and applications
Third International Workshop on Nonlinear Processes in Oceanic and Atmospheric Flows (NLOA2016), Madrid, Julio 2016.
231. E. Hernández-García, E. Ser-Giacomi, R. Vasile, C. López
Pathways of dominant transport in atmospheric and oceanic flows (P)
Third International Workshop on Nonlinear Processes in Oceanic and Atmospheric Flows (NLOA2016), Madrid, Julio 2016.
232. P. Monroy, C. López, E. Hernández-García, V. Rossi
Sinking of Inertial Particles in Ocean Flows (P)
Third International Workshop on Nonlinear Processes in Oceanic and Atmospheric Flows (NLOA2016), Madrid, Julio 2016.
233. C. López, J.H. Bettencourt, E. Hernández-García, I. Montes, J. Sudre, B. Dewitte, A. Paulmier, V. Garçon
Boundaries of the Peruvian Oxygen Minimum Zone shaped by coherent mesoscale dynamics (P)
Third International Workshop on Nonlinear Processes in Oceanic and Atmospheric Flows (NLOA2016), Madrid, Julio 2016.
234. F.S. Bacelar, D. Kiziridis, C. López, E. Hernández-García
The evolution of dispersal of reproducing competitive individuals
Statphys26, Lyon, Francia, Julio 2016.
235. F.S. Bacelar, D. Kiziridis, C. López, E. Hernández-García
The evolution of dispersal of reproducing competitive individuals
Encontro de Física 2016, Natal, Brasil, Septiembre 2016.
236. D. Ruiz-Reynés, D. Gomila¹, T. Sintes, E. Hernández-García, N. Marbà and C. M. Duarte
Pattern formation in Posidonia Oceanica meadows
Fises17, XXI Congreso de Física Estadística, Sevilla, Marzo 2017.
237. J.-B. Delfau, C. López, E. Hernández-García
Active cluster crystals (P)
Fises17, XXI Congreso de Física Estadística, Sevilla, Marzo 2017.
238. N. Khalil, C. López, E. Hernández-García
Nonlocal birth-death competitive dynamics with volume exclusion (P)
Fises17, XXI Congreso de Física Estadística, Sevilla, Marzo 2017.
239. Pedro Monroy, Vincent Rossi, Enrico Ser-Giacomi, Cristóbal López Emilio Hernández-García
Connectivity diagnostics in the Mediterranean obtained from Lagrangian Flow Networks; global patterns, sensitivity and robustness
European Geosciences Union General Assembly 2017, Viena, Austria, Abril 2017.
240. Vincent Rossi, Pedro Monroy, Cristóbal López and Emilio Hernández-García
Modeling the dynamical sinking of biogenic particles in eastern-boundary upwelling systems (P)
European Geosciences Union General Assembly 2017, Viena, Austria, Abril 2017.
241. Daniel Ruiz-Reynés, Damià Gomila, Tomàs Sintes, Emilio Hernández-García, Núria Marbà, Carlos M. Duarte
Pattern Formation and Fairy Circles in Posidonia Oceanica Meadows
Crossroads in Complex Systems, Palma de Mallorca, Junio 2017.
242. Vincent Rossi, Enrico Ser-Giacomi, Pedro Monroy, Cristóbal López, and Emilio Hernández-García
Lagrangian Flow Network: Theory and Applications
Crossroads in Complex Systems, Palma de Mallorca, Junio 2017.
243. Jean-Baptiste Delfau, Emilio Hernández-García and Cristóbal López
Active cluster crystals in systems of self-propelled particles (P)
Crossroads in Complex Systems, Palma de Mallorca, Junio 2017.

244. Emilio Hernández-García, E. Ser-Giacomi, P. Monroy, V. Rodríguez-Méndez, V. Rossi, and Cristóbal López
Network description of fluid transport: Lagrangian Flow Networks (P)
 Crossroads in Complex Systems, Palma de Mallorca, Junio 2017.
245. Nagi Khalil, Cristóbal López, and Emilio Hernández-García
Model of nonlocal birth-death competition with volume exclusion (P)
 Crossroads in Complex Systems, Palma de Mallorca, Junio 2017.
246. Pedro Monroy, Vincent Rossi, Enrico Ser-Giacomi, Cristóbal López, and Emilio Hernández-García
Connectivity measures in the Mediterranean sea from Lagrangian Flow Networks: patterns, sensitivity and robustness (P)
 Crossroads in Complex Systems, Palma de Mallorca, Junio 2017.
247. Ehsan Sadighrad, Vincent Rossi, Manuel Hidalgo, Enrico Ser-Giacomi, Bettina Fach, and Emilio Hernández-García
Modelling the connectivity of early-life stages for exploited species: a new approach for the delimitation of fishery assessment units in the Mediterranean Sea
 2018 AGU/ASLO Ocean Sciences Meeting, Portland, OR, USA, Febrero 2018.
248. João Bettencourt, Vincent Rossi, Emilio Hernández-García, Martinho Marta-Almeida, and Cristóbal López
Characterization of the structure and cross-shore transport properties of a coastal upwelling filament using three-dimensional finite-size Lyapunov exponents (P)
 European Geosciences Union General Assembly 2018, Viena, Austria, Abril 2018.
249. Gabor Drotos, Pedro Monroy, Emilio Hernández-García, and Cristóbal López
Inhomogeneities and caustics in the sedimentation of marine biogenic particles as passive tracers in incompressible flows (P)
 European Geosciences Union General Assembly 2018, Viena, Austria, Abril 2018.
250. Enrico Ser-Giacomi, Emilio Hernández-García, Cristóbal López, Vincent Rossi, Ruggero Vasile, Alberto Baudena, Francesco d'Ovidio
Unveiling geophysical transport skeleton using Lagrangian Flow Networks
 NetSci2018, International School and Conference on Network Science. Paris, Francia, Junio 2018.
251. Rebeca de la Fuente, Cristóbal López, Emilio Hernández-García
Flow Network characterization of bilayers (P)
 CNRS Summer School on “Active transport in the Ocean: Turbulence, Chemistry and Biology”. Wimereux, Francia, Julio 2018.
252. Rebeca de la Fuente, Cristóbal López, and Emilio Hernández-García
Bipartite network characterization of fluid flows and its relation with the classical Lyapunov exponent (P)
 FISES2018, XXII Congreso de Física Estadística. Madrid, Octubre 2018.
253. Daniel Ruiz-Reynés, Francesca Schönsberg, Emilio Hernández-García, and Damià Gomila
A simple model for clonal-growth plants (P)
 FISES2018, XXII Congreso de Física Estadística. Madrid, Octubre 2018.
254. Cristóbal López, Gabor Drótos, Pedro Monroy, and Emilio Hernández-García
Inhomogeneities and caustics in passive particle sedimentation in incompressible flows (P)
 FISES2018, XXII Congreso de Física Estadística. Madrid, Octubre 2018.
255. Rebeca de la Fuente, Audun Skaugen, Luiza Angheluta, Emilio Hernández-García, and Cristóbal López
Lagrangian structures in two-dimensional quantum turbulence (P)
 FISES2018, XXII Congreso de Física Estadística. Madrid, Octubre 2018.
256. Vincent Rossi, Ehsan Sadighrad, Enrico Ser-Giacomi, Emilio Hernández-García, Bettina Fach, Manuel Hidalgo
Modelling early-life stages connectivity to better understand marine population structure and inform fisheries management
 Forum on fisheries science in the Mediterranean and the Black sea, FishForum2018, Rome, Diciembre 2018.

257. Daniel Ruiz-Reynés, Emilio Hernández-García, Tomás Sintés, Núria Marbà and Damià Gomila
Sulfide concentration as a mechanism for pattern formation in Posidonia oceanica meadows(P).
Advances in Pattern Formation: New Questions Motivated by Applications. Sede Boqer, Israel, Febrero 2019.
258. Eduardo H. Colombo, Ricardo Martínez-García, Cristóbal López, Emilio Hernández-García.
Spatial eco-evolutionary feedbacks mediate coexistence in prey-predator systems.
Fluctuations, tipping points and emergence in eco-evolutionary dynamics. Leeds (UK), Julio 2019.
259. Eduardo H. Colombo, Ricardo Martínez-García, Cristóbal López, Emilio Hernández-García.
Spatial eco-evolutionary feedbacks mediate coexistence in prey-predator systems.
Evolution of interacting populations. Plön (Alemania), Septiembre 2019.
260. Violeta Calleja-Solanas, Sandro Meloni, Emilio Hernández-García.
Structured vs. higher-order interactions in competitive ecosystems.
Conference on Complex Systems 2019. Singapore, Septiembre 2019.
261. Álvaro Corral and the CAFE-H2020-MSCA-ITN Team (M. Barreiro, A. Corral, C. Deandreis, R. Donner, H. Douville, N. Ehstand, E. Faust, L. Ferranti, S. Gupta, E. Hernandez-Garcia, P. Herrera, X. Hu, A. John, H. Kantz, Meriem Krouma, J. Kurths, , L. Magnusson, C. Masoller, N. Mastrantonas, J. Matschullat, M. Minjares, F. Pappenberger, I. Perez, N. Rieger, E. Rouges, R. Silini, A. Turiel, P. Yiou).
Climate Advanced Forecasting of sub-seasonal Extremes (CAFE), ITN Project (P, online presentation).
European Geosciences Union General Assembly 2020. Viena(Austria), Mayo 2020.
262. G. Drótos, R. de la Fuente, E. Hernández-García, C. López
Vertical dispersion of noninertial particles when sinking in mesoscale oceanic flows.
Dynamics Days Digital 2020. Agosto 2020.
263. V. Calleja-Solanas, S. Meloni, E. Hernández-García, N. Khalil, J. Gómez-Gardeñes
Structured interactions in competitive ecological systems.
NETSCI 2020 (online). Septiembre 2020.
264. N. Ehstand, R. Donner, C. López, E. Hernández-García
A Lagrangian flow network approach to atmospheric blocking. (P)
Conference on Complex Systems 2020 (CCS2020, online). Diciembre 2020.
265. R. de la Fuente, G. Drótos, E. Hernández-García, C. López, E. van Sebille
Sinking microplastics in the water column: simulations in the Mediterranean Sea.
European Geosciences Union General Assembly 2021 (vEGU21: Gather Online). Abril 2021.
266. E. Ser-Giacomi, A. Baudena, V. Rossi, M. Follows, R. Vasile, C. López, and E. Hernández-García
Lagrangian betweenness: detecting fluid transport bottlenecks in oceanic flows.
European Geosciences Union General Assembly 2021 (vEGU21: Gather Online). Abril 2021.
267. N. Ehstand, R. Donner, C. López, and E. Hernández-García
Detection and tracking of atmospheric blocks: a Lagrangian flow network approach.
European Geosciences Union General Assembly 2021 (vEGU21: Gather Online). Abril 2021.
268. N. Ehstand, R. Donner, C. López, and E. Hernández-García
Characteristic signatures of blocking events in a Lagrangian flow network representation of the atmospheric circulation.
Atmospheric Blocking Virtual Workshop 2021. LMU Munich, online. Septiembre 2021.
269. Violeta Calleja-Solanas, Emilio Hernández-García, Sandro Meloni
Structural Predictors for Species Survival in Ecological Networks
Conference on Complex Systems, CCS2021. Lyon, Francia, Octubre 2021.
270. Tomás Sintés, Eva Llabrés, Daniel Ruiz-Reynés, Damià Gomila, Emilio Hernández-García, Núria Marbà, Carlos M. Duarte
Population dynamics and competition in seagrass meadows in a global warming scenario (P)
ECONET2021: V Symposium on Ecological Networks. Noviembre 2021.

271. Violeta Calleja-Solanas, Emilio Hernández-García, Sandro Meloni
Structural Predictors for Species Survival in Ecological Networks
ECONET2021: V Symposium on ecological networks. Noviembre 2021.
272. Enrico Ser-Giacomi, Alberto Baudena, Vincent Rossi, Mick Follows, Sophie Clayton, Ruggero Vasile, Cristóbal López and Emilio Hernández-García
Lagrangian betweenness and bottlenecks in ocean flow networks (P)
FISES2022, XXIII Congreso de Física Estadística. Zaragoza, Mayo 2022.
273. Noémie Ehstand, Reik V. Donner, Cristóbal López, and Emilio Hernández-García
Using complex networks to predict abrupt changes in oscillatory systems
European Geosciences Union General Assembly 2022. Mayo 2022.
274. Gábor Drótos, Emilio Hernández-García and Cristóbal López
How well is a Kantz-Grassberger-type relationship satisfied for local finite-time characteristics of transient chaos?. (P)
Dynamics Days Europe 2022. Aberdeen, Gran Bretaña, Agosto 2022
275. Noémie Ehstand, Reik Donner, Cristóbal López, Emilio Hernández-García
Percolation framework to anticipate sudden shifts in irregular climate oscillations.
Dynamics Days Europe 2022. Aberdeen, Gran Bretaña, Agosto 2022
276. Noémie Ehstand, Reik Donner, Cristóbal López, Emilio Hernández-García
Network studies of large-scale weather and climate variability patterns on intraseasonal and inter-annual time scales. (P)
Weather and Climate Extremes and their Predictability. Barcelona, Septiembre 2022.
277. Noémie Ehstand, Reik Donner, Cristóbal López and Emilio Hernández-García
A network percolation framework to anticipate sudden shifts in irregular climate oscillations. (P)
Conference on Complex Systems 2022, CCS2022. Palma de Mallorca, Octubre 2022.
278. Gábor Drótos, Emilio Hernández-García and Cristóbal López
Local characterization of transient chaos on finite times in open systems. (P)
Nonlinear Data Analysis and Modeling: Advances, Applications, Perspectives. Potsdam, Alemania, Marzo 2023.
279. Noémie Ehstand, Reik V. Donner, Cristóbal López and Emilio Hernández-García
A percolation framework to anticipate fast changes in irregular climate oscillations.
Nonlinear Data Analysis and Modeling: Advances, Applications, Perspectives. Potsdam, Alemania, Marzo 2023.
280. R.C. van de Vijzel, E.Hernández-García, A. Orfila, D. Gomila
Optimal wave reflection as a mechanism for seagrass self-organization
NCK days 2023. Delft, Holanda, Marzo 2023.
281. Elvira Mayol, Daniel Ruiz-Reynés, Damià Gomila, Alex Gimenez, Carlos Morell, Manuel Matías, Tomàs Sintès, Emilio Hernández-García, Carlos Duarte, Iris Hendriks, Núria Marbà
*Dynamics of seagrass (*Posidonia oceanica*) fairy rings* (P)
Resilience and recovery in aquatic systems. ASLO Aquatic Sciences Meeting 2023. Palma de Mallorca, Junio 2023.
282. Iago Perez, Marcelo Barreiro, Noémie Ehstand, Emilio Hernández-García, and Cristóbal López
Wave Breaking Events and their link to Rossby Wave Packets and Atmospheric Blockings during Southern Hemisphere Summer
EMS2023, European Meteorological Society Annual Meeting 2023. Bratislava, Eslovaquia, Septiembre 2023.
283. Noémie Ehstand, Reik Donner, Cristóbal López, Emilio Hernández-García, Marcelo Barreiro
Sea surface temperature modulation of the Madden-Julian oscillation: a stochastic skeleton model approach (P)
Dynamics Days Europe 2023. Nápoles, Italia, Septiembre 2023.
284. Eduardo H. Colombo, Cristóbal López, and Emilio Hernández-García
A pattern-formation mechanism arising from pulsed interaction signals (P)
FISES'23, XXIV Congreso de Física Estadística. Pamplona, Octubre 2023.

DIRECCIÓN DE TESIS

Tesis doctorales

1. *Dynamics of disordered regimes in spatially extended systems: The complex Ginzburg-Landau equation*. Universidad de las Islas Baleares. Doctorando: Raúl Montagne Dugrós. Leída el 25 Noviembre 1996. Calificación: Apto *cum laude* (codirigida con M. San Miguel).
2. *Complex dynamics of physical, biological, and socio-economical systems*. Universidad de las Islas Baleares. Doctorando: Víctor Martínez Eguíluz. Leída el 13 Diciembre 1999. Calificación: Sobresaliente *cum laude* (codirigida con O. Piro).
3. *Some applications of nonlinear physics to ocean dynamics: from Lagrangian chaos to genetic algorithms*. Universidad de las Islas Baleares. Doctorando: Cristóbal López Sánchez. Leída el 13 Noviembre 2000. Calificación: Sobresaliente *cum laude*.
4. *Nonlinear Dynamics and Regime Shifts in Ecosystems*. Universidad de las Islas Baleares. Doctorando: Flora Souza Bacelar. Leída el 24 Noviembre 2010. Calificación: Sobresaliente *cum laude*.
5. *A complex network approach to phylogenetic trees: From genes to the Tree of Life*. Universidad de las Islas Baleares. Doctorando: E. Alejandro Herrada. Leída el 4 Febrero 2011. Calificación: Sobresaliente *cum laude*. (codirigida con V.M. Eguíluz & C.M. Duarte).
6. *Horizontal transport and mixing and their connection with dynamical and biological processes in the ocean*. Universidad de las Islas Baleares. Doctorando: Ismael Hernández-Carrasco. Leída el 28 Mayo 2013. Calificación: Apto *cum laude*. (codirigida con C. López).
7. *Three Dimensional Lagrangian Structures in Turbulent Flows: Application to Oceanic Processes*. Universidad de las Islas Baleares. Doctorando: João H. Bettencourt. Leída el 27 Noviembre 2014. Calificación: Sobresaliente *cum laude*. (codirigida con C. López).
8. *A complex network theory approach to oceanic and atmospheric transport phenomena*. Universidad de las Islas Baleares. Doctorando: Enrico Ser-Giacomi. Leída el 21 Diciembre 2015. Calificación: Sobresaliente *cum laude*. (codirigida con C. López).
9. *Lagrangian studies of sedimentation and transport. Impact on marine ecosystems*. Universidad de las Islas Baleares. Doctorando: Pedro Monroy. Leída el 17 Septiembre 2019. Calificación: Sobresaliente *cum laude*. (codirigida con C. López).
10. *Lagrangian transport of sinking particles. From theoretical characterization to oceanic applications*. Universidad de las Islas Baleares. Doctorando: Rebeca de la Fuente. Leída el 30 Mayo 2022. Calificación: Sobresaliente *cum laude*. (codirigida con C. López).
11. *Aproximación numérica y lagrangiana aplicada al estudio de procesos costeros en Uruguay*. Universidad de La Republica, Montevideo, Uruguay. Doctorando: Camila de Mello. Leída el 9 Febrero 2023. (codirigida con Marcelo Barreiro & Leonardo Ortega).
12. *Exploring ecological and social interactions through the lens of complex systems*. Universidad de las Islas Baleares. Doctorando: Violeta Calleja-Solanas. Leída el 19 Julio 2023. Calificación: Sobresaliente *cum laude* (codirigida con Sandro Meloni).

Tesis de master

1. *Bifurcation analysis of a marine food chain*. Universidad de las Islas Baleares. Estudiante: Flora Souza Bacelar. Leída el 19 Septiembre 2008.
2. *Simple Branching Models for Macroevolution*. Universidad de las Islas Baleares. Estudiante: Murat Tugrul. Leída el 3 Septiembre 2009 (codirigida con V.M. Eguíluz).
3. *Scaling properties and robustness of finite-size Lyapunov exponents*. Universidad de las Islas Baleares. Estudiante: Ismael Hernández-Carrasco. Leída el 25 Septiembre 2009 (codirigida con C. López).
4. *Lagrangian study of an atmospheric blocking event*. Universidad de las Islas Baleares. Estudiante: Irene Recuerda. Leída el 29 Septiembre 2014 (codirigida con C. López).
5. *Evolution of movement strategies under competitive interactions*. Universidad de las Islas Baleares. Estudiante: Diogenis Kiziridis. Leída el 3 Octubre 2014 (codirigida con C. López).

6. *Network properties of genotype-phenotype mappings*. Universidad de las Islas Baleares. Estudiante: Rebeca de la Fuente. Léida el 20 Septiembre 2016.
7. *Pattern formation in clonal plants*. Universidad de las Islas Baleares. Estudiante: Francesca Schönsberg. Léida el 30 Septiembre 2016 (codirigida con D. Gomila).
8. *Dynamics of attracting Brownian particles*. Universidad de las Islas Baleares. Estudiante: Adrián García. Léida el 31 Julio 2017 (codirigida con C. López).
9. *Cluster crystals under an external flow*. Universidad de las Islas Baleares. Estudiante: Martín E. Maza-Cuello. Léida el 26 Julio 2018 (codirigida con C. López).
10. *Collective motion of Brownian walkers in a birth-death gradient*. Universidad de las Islas Baleares. Estudiante: Alberto Pueyo Wagner. Léida el 27 Septiembre 2018 (codirigida con C. López).
11. *Network description of dynamical systems: The clustering coefficient*. Universidad de las Islas Baleares. Estudiante: Àlex Arcas. Léida el 27 Septiembre 2019.
12. *Precipitation sources and moisture transport in atmospheric rivers from a Lagrangian perspective*. Universidad de las Islas Baleares. Estudiante: Alfredo Crespo. Léida el 27 Julio 2022 (codirigida con C. López).

COMITÉS, ORGANIZACIÓN DE ACTIVIDADES DE I+D, Y GESTIÓN

Director Instituto de Física Interdisciplinar y Sistemas Complejos (IFISC), 2021-presente
 Subdirector, Instituto de Física Interdisciplinar y Sistemas Complejos (IFISC), 2007-2021

Miembro del Consejo Editorial de la revista *Ecological Complexity* (2012-).
 Subdirector Revista Española de Física (Noviembre 2012-Noviembre 2014)

Miembro de Comité Organizador: European Science Foundation Study Center on *Transport in the Atmosphere and the Oceans* (TAO). Palma de Mallorca, 7 Septiembre -1 Octubre 1999.

Miembro de Comité Científico: Reunión Española de Física Estadística (FISES), 1999-2003.

Miembro de Junta Directiva: Grupo Especializado de Física Estadística y No Lineal de la Real Sociedad Española de Física, Mayo 2001 - Mayo 2006.

Convener de la sesión NP.9 *Transport and Mixing: Theory, Modelling and Observations*, XXVI General Assembly of the European Geophysical Society. Nice, Francia, Marzo 2001.

Miembro de Comité Científico: Conference *Waves and Wave Turbulence*, Nyborg, Dinamarca, Agosto 2001.

Convener de la sesión *Pattern Formation*, Dynamics Days Europe 2003. Palma de Mallorca, Septiembre 2003.

Miembro de Comité Organizador: 1st and 2nd Conferences of the BioSim Network of Excellence. Cala Viñas (Mallorca), 6-8 Octubre 2005, 18-21 Octubre 2006

Miembro de Comité Organizador: Workshop on *Dynamics and evolution of biological and social networks*. Palma de Mallorca, Febrero 2008.

Convener de la sesión NP6.01 *Mixing, Transport and Diffusion in the Environment*, European Geosciences Union General Assembly 2008. Viena, Austria, Abril 2008.

Miembro de Comité Científico, Miembro de Comité Organizador: Workshops on *Nonlinear processes in oceanic and in atmospheric flows (NLOA2008)*. Castro Urdiales, Cantabria, Julio 2008.

Miembro de Comité Científico, Miembro de Comité Organizador: Workshop on *Living Organisms in Flows: From Small-scale Turbulence to Geophysical Flows (Orflow10)*. IFISC, Palma de Mallorca, June 2010.

Convener de la sesión *Lagrangian Coherent Structures in fluids*, Dynamics Days Europe 2011. Oldenburg, Alemania, Septiembre 2011.

Miembro de Comité Científico, Miembro de Comité Organizador: Workshop on *Nonlinear processes in oceanic and in atmospheric flows (NLOA2012)*. Madrid, Julio 2012.

Miembro de Comité Organizador: 1st LINC School "Learning about Interacting Networks in Climate". IFISC, Palma de Mallorca, Septiembre 2012.

Miembro de Comité Organizador: FISES2012, XVIII Reunión de Física Estadística. Palma de Mallorca, Octubre 2012.

Miembro de Comité Científico: Workshop Mathematics of Planet Earth: Land, Sea and Air, Ciudad Real, 24 Abril 2013.

Convener de la sesión *Complex networks in climate dynamics*, Dynamics Days Europe 2013. Madrid, Junio 2013.

Miembro de Comité Científico: Simposio en "Física de los Sistemas Complejos". XXXIV Reunión Bial de la Real Sociedad Española de Física, Valencia, 17-18 Julio 2013.

Miembro de Comité Científico, Miembro de Comité Organizador: Conference on *Complex networks and climate variability*. Viena, Austria, 11-12 Abril 2015.

Miembro de Comité Científico: CONFLOW 2015: Complex network perspectives on flow systems. Potsdam, Alemania, 21-22 Septiembre 2015.

Miembro de Comité Científico: COMPLEXIS 2016: 1st International Conference on Complex Information Systems. Roma, Italia, 22-24 Abril 2016.

Miembro de Comité Científico, Miembro de Comité Organizador: Workshop on *Nonlinear processes in oceanic and in atmospheric flows (NLOA2016)*. Madrid, Julio 2016.

Miembro de Comité Científico, Miembro de Comité Organizador: Crossroads in Complex Systems. Mallorca, Junio 2017.

Miembro de Comité Científico: ECC15, 15th Experimental Chaos and Complexity Conference. Madrid, Junio 2018.

Miembro de Comité Científico: Weather and Climate Extremes and their Predictability. Barcelona, Septiembre 2022.

Miembro del Comité de Programa: CCS2022, Conference on Complex Systems 2022. Mallorca, Octubre 2022.

OTROS MÉRITOS

Estancias cortas (menos de cuatro semanas) en

Department of Chemistry, University of California at San Diego (USA).

Departamento de Estructura y Constituyentes de la Materia, Universidad de Barcelona.

Departamento de Física Moderna, Universidad de Cantabria, Santander.

Center for the Physics of Materials, McGill University, Montreal, Canada.

Instituto de Ciencias del Mar (CSIC, Barcelona).

Institut für Theoretische Physik und Synergetik, Universität Stuttgart, Stuttgart, Alemania.

Center for Chaos and Turbulence Studies, Niels Bohr Institute, University of Copenhagen, Copenhagen, Dinamarca.

Instituto de Física, Universidad de la República, Montevideo, Uruguay.

Departamento de Física Aplicada I, Universidad de Málaga.

Departamento de Física de la Materia Condensada, Universidad de Santiago de Compostela.

Departament d'Ecologia, Universitat de Barcelona.

Laboratoire de Météorologie Dynamique, École Normale Supérieure, Paris.

Departamento de Física de la Materia Condensada (Universidad de Zaragoza) e Instituto de Ciencia de Materiales de Aragón (Universidad de Zaragoza-CSIC)

Departamento de Matemáticas y Física Aplicadas y Ciencias de la Naturaleza, Universidad Rey Juan Carlos, Móstoles, Madrid.

Max-Planck-Institut für Physik komplexer Systeme, Dresden (Alemania).

Institute for Chemistry and Biology of the Marine Environment, Carl von Ossietzky Universität Oldenburg (Alemania).

Department of Mathematics, Bristol University (Gran Bretaña).

Center for Nonlinear Studies, Los Alamos National Laboratory (USA).

Institute of Physics and Center for the Dynamics of Complex Systems, Universität Potsdam, (Alemania).

Departamento de Matemáticas, Instituto de Matemáticas y Física Fundamental (IMAFF), CSIC, Madrid.

Institute for Environment and Sustainability, Joint Research Center of the European Commission, Ispra (Italia).

Center of Marine Sciences (CCMAR), Faro, Portugal.

Institute for Informatics. Leipzig University, Alemania

Centre of Excellence in Computational Complex Systems Research, Department of Biomedical Engineering and Computational Science, Helsinki University of Technology, Finlandia

School of Mathematical Sciences, University College Dublin (Irlanda)

Departamento de Biología del Cáncer, Instituto de Investigaciones Biomédicas "Alberto Sols" (CSIC-UAM), Madrid.

Departament de Física i Enginyeria Nuclear, Universitat Politècnica de Catalunya, Terrassa.

Institut für Physik, Humboldt Universität, Berlin (Alemania).

Departamento de Física, Universidade Federal de Pernambuco, Recife (Brasil).
Instituto de Física & Instituto de Biología, Universidade Federal da Bahia, Salvador (Brasil).
Institute of Theoretical Physics, Eötvös University, Budapest (Hungría).
Centre de Recherche INRIA Bordeaux Sud-Ouest (Francia)

Evaluador de la Agencia Nacional de Evaluación y Prospectiva (ANEP, España), National Science Foundation (NSF, USA), European Research Council (ERC), Agencia Nacional de Promoción Científica y Tecnológica (ANPCyT, Argentina), Israeli Science Foundation (ISF, Israel), Fonds voor Wetenschappelijk Onderzoek (FWO, Bélgica), Fondo Nacional de Desarrollo Científico y Tecnológico (FONDECYT, Chile), Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI, Rumanía), Estonian Research Council (ETAg, Estonia), entre otros.

Evaluador, entre otras revistas, de PNAS, Physical Review Letters, Physical Review E, Physical Review A, Geophysical Research Letters, Nonlinear Processes in Geophysics, Ecological Complexity, Physica A, Physica D, Nonlinearity, PloS One, Scientific Reports, Chaos, Journal of the Royal Society Interface, ...

Certificado de Aptitud Pedagógica, emitido por el Instituto de Ciencias de la Educación de la Universidad Politécnica de Cataluña. Junio 1986.

Artículos de investigación citados anteriormente, o trabajos relacionados, han dado lugar a las siguientes **Portadas**:

- Volumen 29, Número 5 (Sept/Oct 1998) de Europhysics News (artículo de divulgación [1]).
- Volumen 9, Número 12 (Dec 1999) de International Journal of Bifurcation and Chaos (artículo [41]).
- Volumen 27, Número 6 (15 Marzo 2000) de Geophysical Research Letters (artículo [43]).
- Volumen 226, Número 9 (Junio 2017) de European Physical Journal-Special Topics (Recent Advances in Nonlinear Dynamics and Complex Structures: Fundamentals and Applications, artículo [138]).

Reseñas de prensa

El artículo [43] ha sido reseñado en los siguientes medios: El Mundo/El Día de Baleares, Martes 11 de Abril, 2000, pág. 14. National Geographic, edición española, sección Geographica España, Agosto 2000. El artículo [48] ha sido reseñado en Revista Española de Física, volumen 13, número 5, página 17 (1999). El artículo [70] fue incluido en la publicación *Top Papers 2005 Showcase* del Institute of Physics.

El artículo [84] ha sido reseñado en El Mundo-Baleares, Diario de Mallorca, Última Hora Ibiza, y Diario de Ibiza, 21 Noviembre 2008.

El artículo [89] ha sido reseñado (Mayo 2009) en más de 16 diarios españoles y extranjeros, y ha dado lugar a una entrevista en la televisión local (IB3tv) y en varias cadenas de radio.

El artículo [92] ha sido reseñado en el número 29 (diciembre 2009) de 'The EGGS', newsletter de la European Geophysical Union (pág. 14).

El artículo [112] ha sido destacado como 'Editor Suggestion' en el número de 21 de Junio de 2013 de la revista Physical Review Letters.

El artículo [120] ha sido reseñado (Abril 2014) en El Mundo-Baleares.

El artículo [124] ha sido incluido en la lista de los 20 artículos de la revista Chaos más citados durante 2017.

El artículo [130] ha sido reseñado (Noviembre 2015) en varios medios españoles y extranjeros, incluyendo entre otros El Mundo-Baleares, Agencia SINC o Agencia EFE.

En Diciembre 2015 el artículo [87] superó el número de citas necesario (148) para ser considerado "Highly cited paper" (top 1% de citas en su campo y año) por Thompson Reuters' Essential Science Indicators.

El artículo [131] ha sido reseñado (Febrero 2016) en varios medios incluyendo El Mundo-Baleares, ABC o IB3radio.

El artículo [135] ha sido destacado como 'Editor Suggestion' en el número de Octubre de 2016 de la revista Physical Review E, y ha sido reseñado en la Revista Española de Física (número 31-1, 2017).

El artículo [139] ha sido reseñado en la Revista Española de Física (número 31-3, 2017).

El artículo [142] ha sido reseñado (Agosto 2017) en medio centenar medios españoles y extranjeros, incluyendo entre otros Nature Physics, El Mundo, ABC, Agencia EFE, Europa Press, The Sun, Daily Mail o IB3 TV.

El artículo [160] ha sido reseñado (Marzo 2021) en el diario Última Hora.

Dirección de Memorias de Tercer Ciclo

1. *Multiple front propagation into unstable states*. Raúl Montagne Dugrós. 3 de Mayo de 1995 (codirigida con M. San Miguel).
2. *Average patterns of spatiotemporal chaos: a boundary effect*. Víctor Martínez Eguíluz. 30 de Marzo de 1999 (codirigida con O. Piro).

Dirección de Trabajos de Fin de Grado

1. *Lotka-Volterra dynamics in model ecosystems*. Francesca Sofia Blanco Janer. 29 de Junio de 2022

Dirección de Proyectos de Final de Carrera

1. *Generación, transmisión y recepción de datos utilizando codificación caótica*. Pedro José Morales Correas. Proyecto de Fin de Carrera de Ingeniería Técnica en Telecomunicaciones (Especialidad Telemática) . 21 de Julio 2000 (codirigida con C. Mirasso).
2. *Codificación/Decodificación de Señales de Audio mediante Señal Caótica*. Antonio Costa. Proyecto de Fin de Carrera de Ingeniería Técnica en Telecomunicaciones (Especialidad Telemática) . 17 de Octubre 2003 (codirigida con C. Mirasso).

Asistencia a Congresos

1. Recent Developments in Nonequilibrium Thermodynamics: Fluids and related topics. San Feliu de Guíxols (Girona, España), Septiembre 16-20, 1985.
2. XX Reunión Bienal de la RSEF Sitges, España, Octubre 1985.
3. Determinismo y Libertad. Figueres, España, Noviembre 1-3, 1985.
4. IX Sitges Conference: Fluctuations and Stochastic Phenomena in Condensed Matter. Sitges, España, Mayo 1986.
5. NATO Advanced Study Institute and EPS Liquid State Summer School on Physicochemical Hydrodynamics: Interfacial Phenomena. La Rábida (Huelva, España). Julio 1-11 1986.
6. NATO Advanced Study Institute on Time-Dependent Effects in Disordered Materials. Geilo (Noruega). 29 Marzo -9 Abril 1987.
7. I Reunión de Física Estadística. Barcelona, España, 21-23 Abril 1987.
8. II Escuela Ibérica de Física de la Materia Condensada. Fenómenos Cooperativos. Figueira da Foz (Portugal). 14-25 Septiembre 1987.
9. Workshop de Estadística Cuántica: Láseres. Palma de Mallorca, España, 19-21 Octubre 1987.
10. Workshop "External Noise and its Interaction With Spatial Degrees of Freedom in Nonlinear Dissipative Systems." Los Alamos (New Mexico, USA). 28-30 Marzo 1988.
11. Workshop on "Dynamics of Nonlinear Optical Systems". Santander, España, 24-26 Octubre 1988.
12. II Congreso de Física Estadística. Palma de Mallorca, España, 9-11 Noviembre 1988.
13. European Physical Society, 9th General Conference of the Condensed Matter Division. Nice (Francia) Marzo 6-9 1989.
14. NATO Advanced Study Institute on Patterns, Defects, and Materials Instabilities. Cargèse (Francia) Septiembre 4-16 1989.
15. XXII Reunión Bienal de la RSEF. Palma de Mallorca, 2-6 Octubre 1989.
16. III Congreso de Física Estadística. Badajoz, España, 5-7 Abril 1990.
17. Statistical Physics at the 45th parallel, IV. Montreal (Canada), 19-20 Octubre 1990.
18. 1991 March meeting of the American Physical Society. Cincinnati (Ohio, USA), 18-22 Marzo 1991.

19. IV Congreso de Física Estadística. Gijón, España, 18-20 Septiembre 1991.
20. II Meeting of the European Twinning Network on "Complexity and Chaos in Quantum Optics", Nice (Francia), 27-29 Febrero 1992.
21. III Meeting of the European Twinning Network on "Complexity and Chaos in Quantum Optics", Mallorca, España, 31 Mayo -2 Abril 1993.
22. V Congreso de Física Estadística. El Escorial, España, 4-7 Mayo 1993.
23. Chaos, Order and Patterns: The Grand Finale. Como, Italia, 5-10 Septiembre 1993.
24. IV Meeting of the European Twinning Network on "Complexity and Chaos in Quantum Optics", Lille (Francia), 28-30 Marzo 1994.
25. XIII Sitges Conference: 25 Years of Non-Equilibrium Statistical Mechanics. Sitges, España, 13-17 Junio 1994.
26. The Geometry of Forms in Equilibrium and Nonequilibrium Systems. St. John's (Canada), 15-20 Julio 1994.
27. Conference on Lasers and Electro-Optics and European Quantum Electronics Conference (CLEO/Europe-EQEC). Amsterdam (Holanda), 28 Agosto -2 Septiembre 1994.
28. VI Congreso de Física Estadística. Sevilla, España, 6-8 Octubre 1994.
29. Chaos: Towards the Next Century. Como (Italia), 5-9 Junio 1995.
30. Dynamics Days'95. Lyon (Francia), 28 Junio -1 Julio 1995.
31. XXI General Assembly of the European Geophysical Society. La Haya(Holanda), 6-10 Mayo 1996.
32. VII Congreso de Física Estadística. Zaragoza, España, 23-25 Mayo 1996.
33. Reunión Española sobre Procesos de Crecimiento y Fenómenos Interfaciales. Leganés, Madrid, España, 4-5 de Julio 1996.
34. Dynamics Days'96. Lyon (Francia), 9-13 Julio 1996.
35. No-Lineal 97. Avila, España, 10-12 Abril 1997.
36. Meeting of the Computational Physics Board of the European Physical Society. Palma de Mallorca, España, 5 Septiembre 1997.
37. VIII Congreso de Física Estadística, FISES'97. Getafe, España, 25-27 Septiembre 1997.
38. Patterns, non-linear dynamics and stochastic behaviour in spatially extended, complex systems (PNS'97). Budapest (Hungria), 23-28 Octubre 1997.
39. IV Reunión anual de la Sociedad Uruguaya de Física. Piriápolis (Uruguay), 1-2 Diciembre 1997.
40. 7th Workshop on Instabilities and Nonequilibrium Structures. Valparaíso (Chile), 15-19 Diciembre 1997.
41. XXIII General Assembly of the European Geophysical Society. Nice (Francia), 10-24 Abril 1998.
42. STATPHYS 20, XX IUPAP International Conference on Statistical Physics. Paris (Francia), 20-24 Julio 1998.
43. Workshop on small-scale mixing in strongly stratified flows. Cambridge (UK), 10-12 Diciembre 1998.
44. Meeting of the Network *Nonlinear Dynamics of Spatio-temporal Selforganization*. Barcelona, España, 10-12 Febrero 1999.
45. IX Congreso de Física Estadística, FISES'99. Santander, España, 6-8 Mayo 1999.
46. Fifth SIAM Conference on Applications of Dynamical Systems 1999. Snowbird, Utah, USA, 23-27 Mayo 1999.

47. European Science Foundation Study Center on *Transport in the Atmosphere and the Oceans* (TAO). Palma de Mallorca, España, 7 Septiembre -1 Octubre 1999.
48. XXV General Assembly of the European Geophysical Society. Nice (Francia), 24-29 Abril 2000.
49. NoLineal2000. Almagro (Ciudad Real, España). 31 Mayo -3 Junio 2000.
50. FISES2000, X Reunión de Física Estadística. Santiago de Compostela, España, 21-23 Septiembre 2000.
51. 2nd Latin American Summer School on Instabilities and Nonlinear Dynamics: Applications in Natural and Socio-Economical Systems. Valparaíso (Chile). 11-15 Diciembre 2000.
52. 1st workshop of the EU project SOFT: Satellite-based ocean forecasting. Esporles (Mallorca,España). 15-16 Febrero 2001.
53. XXVI General Assembly of the European Geophysical Society. Nice (Francia), 25-30 Marzo 2001.
54. Waves and Wave Turbulence. Nyborg (Dinamarca), 12-15 Agosto 2001.
55. International Summer School on Dynamical Barriers, Stirring and Mixing in Geophysical Flows - Mathematical Models and Applications (GEOMIX 2001). Cargèse (Francia). 19 Agosto -1 Septiembre 2001.
56. International Summer School on Atmospheric and Oceanic Sciences (ISSAOS 2001): Chaos in geophysical flows. L'Aquila, Italia. 10-14 Septiembre 2001.
57. II Meeting of the Network *Nonlinear Dynamics of Spatio-temporal Selforganization*. Barcelona, España, 6-8 Febrero 2002.
58. FISES2002, XI Congreso de Física Estadística. Tarragona, España, 23-25 Mayo 2002.
59. Chemical and Biological Activity in Flows (ACTIFLOW Workshops and Seminar). Dresden, Alemania, 26 Agosto -27 Septiembre 2002.
60. 2nd workshop of the EU project SOFT: Satellite-based ocean forecasting. Calanova (Mallorca,España). 28-30 Octubre 2002.
61. MEDYFINOL'02: XIII Meeting on Nonequilibrium Statistical Mechanics and Nonlinear Physics. Colonia del Sacramento, Uruguay, 9-13 Diciembre , 2002.
62. European Geophysical Society/American Geophysical Union Joint Assembly. Nice (Francia), 7-11 Abril 2003.
63. Alcalá 2nd International Conference on Mathematical Ecology (AICME II). Alcalá de Henares, España, 5-9 Septiembre 2003.
64. Kolmogorov's Legacy in Physics: One Century of Chaos, Turbulence and Complexity. Trieste, Italia, 8-12 Septiembre 2003.
65. Dynamics Days Europe 2003. Palma de Mallorca, 24-27 Septiembre 2003.
66. Minisymposium on *Interaction of biological growth and mixing processes in fluids*. Oldenburg (Alemania), 29 Enero 2004.
67. III Jornades de la Xarxa Temàtica *Nonlinear Dynamics of Spatio-Temporal Selforganization*. Barcelona, España, 5-7 Febrero 2004.
68. London Mathematical Society Meeting on 'Scalar mixing in fluid flows and mappings'. Bristol, Gran Bretaña, 4 Mayo 2004.
69. Verhulst 200 on Chaos. Brussels (Bélgica), 16-18 Septiembre 2004.
70. MEDYFINOL'04: XIV Meeting on Nonequilibrium Statistical Mechanics and Nonlinear Physics. La Serena, Chile, 6-10 Diciembre 2004.
71. Thresholds kick-off meeting. Palma de Mallorca, España, 11-12 Enero 2005.
72. International Cross-Disciplinary Symposium on Physics and Biology. Oslo, Noruega, 4-7 Marzo 2005.

73. Eur-Oceans kick-off meeting. Paris, Francia, 14-15 Abril 2005.
74. Workshop on Network Analysis of Genetic Structures. Universidade do Algarve, Faro, Portugal, 2-3 Junio 2005.
75. FISES2005, XIII Congreso de Física Estadística. Madrid, España, 27-29 Junio 2005.
76. Dynamics Days Europe 2005. Berlin (Alemania), 25-28 Julio 2005.
77. 1st Conference of the BioSim Network of Excellence. Cala Viñas (Mallorca, España), 6-8 Octubre 2005.
78. IV Jornades de la Xarxa Temàtica *Nonlinear Dynamics of Spatio-Temporal Selforganization*. Barcelona, España, 1-3 Febrero 2006.
79. 1st Annual Assembly of the THRESHOLDS Integrated Project. Madrid, España, 14-15 Febrero 2006
80. Dynamics on Complex Networks and Applications (DYONET06 2nd week Seminar), Dresden, Alemania, 27 Febrero -3 Marzo 2006
81. Eur-Oceans annual PIs meeting. Barcelona, España, 15-16 Marzo 2006.
82. BioSim workshop. Potsdam, Alemania, 24-25 Abril 2006.
83. FISES2006, XIV Congreso de Física Estadística. Granada, España, 14-16 Septiembre 2006.
84. Workshop on Social and Ecological Networks, European Conference on Complex Systems (ECCS06). Oxford, Gran Bretaña, 28-29 Septiembre 2006.
85. 2nd Conference of the BioSim Network of Excellence. Cala Viñas (Mallorca, España), 18-21 Octubre 2006.
86. MEDYFINOL'06: XV Meeting on Nonequilibrium Statistical Mechanics and Nonlinear Physics. Mar del Plata, Argentina, 4-8 Diciembre 2006.
87. 2nd Annual Assembly of the THRESHOLDS Integrated Project, Helsinki, Finlandia, 22-24 Enero 2007
88. European Geosciences Union General Assembly 2007. Viena, Austria, 15-20 Abril 2007.
89. 6th International Congress on Industrial and Applied Mathematics (ICIAM07). Zürich, Suiza, 16-20 Julio 2007.
90. European Conference on Complex Systems (ECCS07), and Showcase of European Complexity Science Projects. Dresden, Alemania, 1-6 Octubre 2007.
91. 3th Conference of the BioSim Network of Excellence. Potsdam, Alemania, 10-12 Octubre 2007.
92. 3th Annual Assembly of the THRESHOLDS Integrated Project, Roma, Italia, 15-16 Enero 2008.
93. Workshop on Dynamics and Evolution of Biological and Social Networks. Palma de Mallorca, España, 18-20 Febrero 2008.
94. FISES2008, XV Congreso de Física Estadística. Salamanca, España, 27-29 Marzo 2008.
95. European Geosciences Union General Assembly 2008. Viena, Austria, 13-18 Abril 2008.
96. International Conference "Modelling and Computation on Complex Networks and Related Topics", Net-Works 2008. Pamplona, España, 9-11 Junio 2008.
97. Workshop on "Nonlinear processes in oceanic and atmospheric flows", NLOA2008. Castro Urdiales, Cantabria, España, 2-4 Julio 2008.
98. 4th Conference of the BioSim Network of Excellence. Budapest, Hungría. 24-26 Septiembre 2008.
99. MEDYFINOL'08: XVI Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics. Punta del Este, Uruguay, 1-5 Diciembre 2008.
100. Final Assembly of the THRESHOLDS Integrated Project, Madrid, 23 Marzo 2009.

101. BioSim workshop on Methodological Challenges for Systems Biology: linking networks, crossing scales. Venecia, Italia, 30 Marzo -3 Abril 2009.
102. RTRA-STAE Workshop on Geometrical and multiscale approaches for predictability and analysis of complex data in astrophysics and geophysics. Montaignut-Sur-Save, Francia, 18-19 Mayo 2009.
103. EPSRC Symposium Capstone Conference. University of Warwick, Gran Bretaña, 30 Junio -3 Julio 2009.
104. 5th Conference of the BioSim Network of Excellence. Copenhagen, Dinamarca. 25-29 Agosto 2009.
105. Lagrangian Analysis and Prediction of Coastal and Ocean Dynamics (LAPCOD) 2009. La Londe-des-Maures, Francia, 7-11 Septiembre 2009.
106. Thematic Institute on *Lyapunov analysis: from theory to geophysical applications*. Institut des Systemes Complexes (ISC-PIF), Paris, Francia, 26-30 Octubre 2009.
107. International Workshop on *150 Years after Darwin: From Molecular Evolution to Language*. Trends in Complex Systems series. Palma de Mallorca, 23-27 Noviembre 2009.
108. Workshop on *Exploring Complex Dynamics in High-Dimensional Chaotic Systems: From Weather Forecasting to Oceanic Flows (ECODYC10)*. Dresden, Alemania, 25-29 Enero 2010.
109. IFISC Exploratory Workshop on *How does Information Processing emerge in the Brain?*. Palma de Mallorca, 9-10 Marzo 2010.
110. International Workshop on *Living Organisms in Flows: From Small-scale Turbulence to Geophysical Flows (Orflow10)*. Palma de Mallorca, 7-11 Junio 2010.
111. 3rd Conference on Nonlinear Science and Complexity (NSC10). Ankara, Turquía, 28-31 Julio 2010.
112. Emergence and Design of Robustness (ROBUST). Palma de Mallorca, 21-25 Septiembre 2010.
113. Workshop on *Coherent Structures in Dynamical Systems*. Leiden (Holanda). 16-20 Mayo 2011.
114. FISES2011, XVII Congreso de Física Estadística. Barcelona, España, 2-4 Junio 2011.
115. Dynamics Days Europe 2011. Oldenburg, Alemania, 12-16 Septiembre 2011.
116. Reunión del Nodo Español del proyecto FuturICT. Barcelona, 5-6 Octubre 2011.
117. Jornada de Complejidad y Nolinealidad en Geociencia. Barcelona, 6 Octubre 2011.
118. Search and stochastic phenomena in complex physical and biological systems. Palma de Mallorca, 28 Mayo - 1 Junio 2012.
119. International Conference on Delayed Complex Systems (DCS 2012). Palma de Mallorca, 4-8 Junio 2012.
120. 2nd International Workshop on “Nonlinear Processes in Oceanic and Atmospheric Flows”, NLOA2012. Madrid, 3-6 Julio 2012.
121. 1st LINC (Learning about Interacting Networks in Climate) School and Workshop. IFISC, Palma de Mallorca, 10-12, and 13 Septiembre 2012.
122. FISES2012, XVIII Congreso de Física Estadística. Palma de Mallorca, 18-20 Octubre 2012.
123. 2012 International Symposium on Nonlinear Theory and its Applications, NOLTA2012. Palma de Mallorca, 22-26 Octubre 2012.
124. MEDYFINOL 2012: XVII Conference on Nonequilibrium Statistical Mechanics and Nonlinear Physics. Santiago, Chile, 3-7 Diciembre 2012.
125. NDA13: Nonlinear Data Analysis and Modeling: Advances, Applications, Perspectives. Potsdam, Alemania, 21-22 Marzo 2013.
126. 2nd LINC (Learning about Interacting Networks in Climate) School and Workshop. Soesterberg, Holanda, 21-30 Abril 2013.
127. Dynamics Days Europe 2013. Madrid, 3-7 Junio 2013.

128. Models in Population Dynamics and Ecology MPDE'13. Osnabrück, Alemania, 26-29 Agosto 2013.
129. 3rd LINC (Learning about Interacting Networks in Climate) Workshop. Potsdam, Alemania, 17-20 Noviembre 2013.
130. Workshop on Mixing, Transport, and Coherent Structures. Mathematisches Forschungsinstitut Oberwolfach, Alemania, 26 Enero -1 Febrero 2014.
131. World Climate Research Programme (WCRP) Conference for Latin America and Caribbean: Developing, linking and applying climate knowledge. Montevideo, Uruguay, 17-21 Marzo 2014.
132. 4th LINC (Learning about Interacting Networks in Climate) Workshop. Montevideo, Uruguay, 24-26 Marzo 2014.
133. FISES2014, XIX Congreso de Física Estadística. Ourense, 2-4 Abril 2014.
134. NoLineal 2014. Badajoz, 4-6 Junio 2014.
135. 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications. Madrid, 7-11 Julio 2014.
136. Strolling on Chaos, Turbulence and Statistical Mechanics. Roma, Italia, 22-24 Septiembre 2014.
137. Conference on Complex Networks and Climate Variability. Viena, Austria, 11-12 Abril 2015.
138. European Geosciences Union General Assembly 2015. Viena, Austria, 12-17 Abril 2015.
139. CONFLOW 2015: Complex network perspectives on flow systems. Potsdam, Alemania, 21-22 Septiembre 2015.
140. FISES2015, XX Congreso de Física Estadística. Badajoz, 5-7 Octubre 2015.
141. CSNDD'2016: Third International Conference on Structural Nonlinear Dynamics and Diagnosis. Marrakech, Marruecos, 23-25 Mayo 2016.
142. 3rd International Workshop on "Nonlinear Processes in Oceanic and Atmospheric Flows", NLOA2016. Madrid, 6-8 Julio 2016.
143. DAMES 2016: Data Analysis and Modeling in Earth Sciences. Hamburg, Alemania, 26-28 Septiembre 2016.
144. 2nd HYDROGENCONNECT workshop. Erdemli, Turquía, 12-13 Octubre 2016.
145. FISES2017, XXI Congreso de Física Estadística. Sevilla, 30 Marzo - 1 Abril 2017.
146. Crossroads in Complex Systems. Palma de Mallorca, 5-8 Junio 2017.
147. EarthFlows2017, Workshop on Interface Dynamics in Geophysical Flows. Oslo, Noruega, 15-16 Junio 2017.
148. ENFE2007, II Encontro Nacional de Física Estatística. Ilhéus, Brasil, 17-20 Septiembre 2017.
149. LAWNP2017, XV Latin American Workshop on Nonlinear Phenomena. La Serena, Chile, 6-10 Noviembre 2017.
150. International Workshop "Predicting transitions in complex systems". Dresden, Alemania, 23-37 Abril 2018.
151. "Mixing Day". Barcelona, 28 Mayo 2018.
152. Trends in Non-equilibrium Physics. Barcelona, 22 Junio 2018.
153. CNRS Summer School on "Active transport in the Ocean: Turbulence, Chemistry and Biology". Wimereux, Francia, 2-6 Julio 2018.
154. Dynamics Days Europe 2018. Loughborough, Gran Bretaña, 3-7 Septiembre 2018.
155. Physics and ecology: Challenges at the frontier. XXXIV Trobades científiques de la Mediterrània Josep Miquel Vidal. Maó, Menorca, 9-11 Octubre 2018.

156. FISES2018, XXII Congreso de Física Estadística. Madrid, 18-20 Octubre 2018.
157. Primeres Jornades sobre Canvi Climàtic a les Illes Balears. Palma de Mallorca, 25-26 Octubre 2018.
158. Advances in Pattern Formation: New Questions Motivated by Applications. Sede Boqer, Israel, 18-21 Febrero 2019.
159. Turbulence Effects on Active Species in Atmosphere and Ocean (TEASAO) workshop. St-Ferréol, Francia, 28-31 Octubre 2019.
160. 1st CAFE (Climate Advanced Forecasting of sub-seasonal Extremes) School. Sitges, Barcelona, 13-22 Noviembre 2019.
161. XVII International Workshop on Instabilities and Nonequilibrium Structures. Valparaiso, Chile, 2-6 Diciembre 2019.
162. European Geosciences Union General Assembly 2021 (vEGU21: Gather Online), 19-30 Abril 2021.
163. 16th Granada Seminar: New Frontiers in Nonequilibrium Statistical Physics: from fundamentals, fluctuations and hydrodynamics to biology and quantum nonequilibrium (online), 7-17 Junio 2021.
164. 3rd CAFE (Climate Advanced Forecasting of sub-seasonal Extremes) Workshop. Toulouse, Francia, 3-5 Noviembre 2021.
165. ECONET2021: V Symposium on Ecological Networks. Palma de Mallorca, 10-12 Noviembre 2021.
166. 100xCiencia.5. The international dimension of science. Santiago de Compostela, 26-27 Noviembre 2021.
167. XVIII International Workshop on Instabilities and Nonequilibrium Structures (online), 6-10 Diciembre 2021.
168. FISES2022, XXIII Congreso de Física Estadística. Zaragoza, 12-14 Mayo 2022.
169. International Symposium on Nonlinear Dynamics and Complex Structures in the Geosciences. Oldenburg, Alemania, 15 Julio 2022.
170. Dynamics Days Europe 2022. Aberdeen, Gran Bretaña, 22-26 Agosto 2022.
171. Weather and Climate Extremes and their Predictability. CAFE (Climate Advanced Forecasting of sub-seasonal Extremes) Final Conference. Barcelona, 27-29 Septiembre 2022.
172. Conference on Complex Systems CCS2022. Palma de Mallorca, 17-21 Octubre 2022.
173. 100xCiencia.6. Ciencia para el futuro: Construyendo un horizonte más justo y sostenible. Barcelona, 3-4 Noviembre 2022.
174. Resilience and recovery in aquatic systems. ASLO Aquatic Sciences Meeting 2023. Palma de Mallorca, 4-9 Junio 2023.
175. Nolineal2023, 13th Conference on Nonlinear Mathematics and Physics. Centre de Recerca Matemàtica, Univ. Autònoma de Barcelona, 26-28 Junio 2023
176. StatPhys28, the 28th International Conference on Statistical Physics. Tokio, Japón, 7-11 Agosto 2023
177. 100xCiencia.7. 7 Preguntas para cambiar el mundo; el estado del arte de la ciencia del futuro. Granada, 23-24 Octubre 2023.
178. FISES'23, XXIV Congreso de Física Estadística. Pamplona, 25-27 Octubre 2023.