FisEs'26

Numeración y sesión de las contribuciones en formato póster

Poster Session 1 - Miércoles 14 de octubre

1. **Andrés Santos**
   Delayed Thermal Relaxation and the Mpemba Effect in the Descartes Protocol
2. **Adri Escañuela-Copado, Daniel Valero, Alberto Martín-Molina, Alessandro Patti**
   Molecular Simulation of Electro-Oriented Nanorod Nanocomposites
3. **Joaquin Miguez, Ines Perez Mariño**
   Stochastic Synchronization of Master-Slave Coupled Nonlinear Partial Differential Equations
4. **Violeta Hernàndez Arnal, Max Puig, Sergio Alonso, Clara Prats and Daniel López**
   Modelling the epidemiological impact of diagnostic performance on malaria transmission
5. **Marta Sánchez-Díez, Carmen Ramírez-Castillejo, Juan Manuel Pastor**
   Probabilistic Modeling of Colorectal Cancer Recurrence: A Bayesian Multicentre Study
6. **Miguel A. Mohedano-Muñoz , Javier Galeano, Juan M. Pastor , Julia G. de Aledo, Ignasi Bartomeus, Alfonso Allen-Perkins**
   reserBUGS: A reservoir computing framework for probabilistic forecasting of ecological abundance time series
7. **I. Leyva, L.M. Ballesteros-Esteban, J. A. Almendral, I. Sendiña-Nadal**
   Coevolution of structure and function in cultured neuronal networks
8. **Federico Bellisardi, Enrique Cano Sunen, Ana Ruiz-Varona, Jose J. Ramasco**
   Mobility energetic balance as a driver of urban spatial organization
9. **Yuri Martínez-Ratón, Jorge Vega, Enrique Velasco**
   Topological defects in vibrated monolayers of equilateral triangular prisms
10. **Jorge Mampel, Daniel Ruiz-Reynés, Damià Gomila**
    Optimising Seagrass Restoration Using Spatial Self-Organisation
11. **I. Leyva, I. Sendiña-Nadal, R. Sevilla-Escoboza, V. P. Vera-Ávila, C. Letellier**
    Lost in averaging: from chaotic itinerancy to intermittent synchronization in complex networks
12. **Francisco J. Muñoz, Juan Carlos Nuño**
    Probabilistic Cellular Automata: between deterministic Wolfram's rules 23, 77, 178 and 232
13. **J. M. Marcos, J. J. Meléndez, R. Cuerno, J. J. Ruiz-Lorenzo**
    Discrete Lattice Models for Interface Growth on a Complete Graph
14. **Ana M. Montero, Péter Gurin, Szabolcs Varga and Andrés Santos**
    Emergence of orientational order in a confined hard-dumbbell fluid
15. **Natalia Briñas-Pascual, Víctor Manso, Pilar Guerrero**
    Spatial Organization of Adhesion-Deficient Cells Modulates Mechanical Rigidity and Topological Dynamics in Epithelial Tissues
16. **Fabio Revuelta, Alejandro Saenz**
    Multiwell effects on inelastic confinement-induced resonances
17. **Alberto P. Munuzuri, Juan Pérez-Mercader**
    Emergent life-like dynamics in interacting Stochastic Cubic Autocatalytic Reaction–Diffusion Systems
18. **Arturo Moncho Jordá, Alejandro Cuetos, Miguel A. Fernández-Rodríguez, Joachim Dzubiella, Alessandro Patti**
    Molecular simulation and modelling of thermoresponsive microgels

19. **Juan M. López**
Polarization patterns in ferroelectric materials

20. **Raquel Dapena-García, Vicente Pérez-Muñuzuri**
Effect of particle morphology on margination dynamics in stenotic vessels: 2D and 3D simulations with red blood cells

21. **P. Moreno-Spiegelberg, Riccardo Fornaro, Fabricio Carteni, Giovanni Pagano, Francesco Giannino**
Noise-induced spatiotemporal pattern formation in plant-soil systems

22. **Santiago Mosca, Eva G Noya**
Stability of a decagonal quasicrystal in soft-corona particles

23. **Pablo F. Garrido, Paula Antelo-Riveiro, Markus H. Sneve, Anders M. Fjell, Kristine B. Walhovd**
A look at the Gray-White matter Interface by diffusion MRI

24. **Raúl A. Rica Alarcón, Miguel Ibáñez, Antonio Lasanta**
Non-isothermal processes with an optically trapped Brownian particle

25. **Ángela Tajuelo-Valbuena and Carlos Pérez Espigares**
Conditioning the Unlikely: Dynamics of Rare Events in Random Maps

26. **Mar Cuevas-Blanco, Gorka Buenvarón-Campo, Juan Fernández-Gracia, Anna Traveset, Lucas Lacasa, Victor M. Eguíluz**
Function Driven Dynamics in Ecological Networks

27. **J. P. G. Villaluenga, F. J. Cao-García**
Ligand binding in crowded polymers

28. **Eduardo Nieto-Vargas, Rubén Calvo, Carles Martorell, and Miguel A. Muñoz**
Periodic Input forces Synchronisation in Chaotic Neural Networks via Stochastic Resonance

29. **Antonio F. Peralta, Daniel Ruiz-Reynés, Thilo Gross**
Epidemic Domains and Frontiers in Spatial Networks

30. **Javier Rodríguez-Laguna, Fernando J. Gómez-Ruiz, Ricardo Gutiérrez, Silvia N. Santalla**
New and old Kibble-Zurek mechanisms in the quantum world

31. **Yolanda Valencia Díaz, Julio M. Alcántara**
Analysis of a mechanistic model of plant community dynamics based on replacement networks

32. **Àlex Giménez-Romero, Tomàs Sintes, Carlos M. Duarte, Manuel A. Matías**
Thermal stress drives seagrass fragmentation in the Mediterranean Sea

33. **D. Jiménez-Flores, A. Rodríguez-Rivas, J. M. Romero-Enrique**
Mobility-induced phase separation in a binary mixture of active Brownian particles

34. **Carlos Biedma-Mateos, Alberto Jiménez-Solano, Esteban Meca**
Physically Consistent Boundary Conditions for Phase Field Crystals: Connection with Classical Density Functional Theory

35. **M. Grande, S. Gomez, F. Borondo, J. Borondo**
Rethinking Market Indicators with Network Science and Blockchain Data

36. **Marco Mendívil Carboni, Luis Dinis, Juan José Mazo**
Evolutionary adaptation through bet-hedging in finite populations under fluctuating environments

37. **Pablo Rosillo-Rodes, Laurent Hébert-Dufresne, Peter Sheridan Dodds**
Analytic extension of Simon's model beyond the Zipf point

38. **Gabriel Guzmán-Schiller, Miguel Aguilera**
Self-Sustained Macroscopic Dynamics in an Asymmetric Hopfield Network with Plasticity

39. **Raúl Coterillo, Miguel Aguilera**
Thermodynamic Irreversibility and Abrupt Synchronization in Integrate-and-Fire Neural Population Model

40. **T. de Navascués Martínez, D. Maza, M. Maza-Cuello**
Dinámica colisional caótica controlada por fricción

41. **Carlos Mejía Monasterio**
Anomalous heat transport in long-range chains of oscillators with conservative noise

42. **Sára Lévay, Axel Katona, Raúl Cruz Hidalgo, Iker Zuriguel**
Clustering driven transport of chiral active matter

43. **Raphaël Maire, Adhvik Jagannathan, Leonardo Galliano, Andrea Plati, Frank Smallenburg, Giuseppe Foffi, Ludovic Berthier**
Non-equilibrium universality classes of interfaces in active phase coexistence

44. **Antonio Patrón-Castro, Carlos Ríos-Monje, Carlos A. Plata, Bernardo Sánchez-Rey, Antonio Prados**
Maximising the Mpemba effect in kinetic fluids

45. **Diego Pérez-Dones, Mario Ledesma-Terrón , Diego Mazo-Durán, Gemma Navarro-Martinez, David G. Míguez**
Dynamics of growth and differentiation in the developing vertebrate retina

Poster Session 2 - Jueves 15 de Octubre

46. **Raúl Toral**
Biased Voter Models: From Persuasive Minorities to Partisan Network

47. **Juan Iribas, Miguel García-Sánchez, José Faro, Mario Castro**
Catch-bond me if you can: towards a unified view of B-cell receptor binding

48. **Juan Iribas de la Puerta, Mario Castro**
Information-Geometric Selection in T-Cell Receptor Cascades: How Noise Shapes Ligand Discrimination

49. **Fernando Muñoz, Martí Català, Beatriz Eguzkitza, Sally Sharpe, Clara Prats, Pere-Joan Cardona**
Assessment of protective mechanisms in the evolution of TB infection in rhesus macaques using a parameterized computational model

50. **A. de Arcos-Cañamero, T. Brito, G. Novell-Leruth, J.V. Perales-Rondón, R. García-Muelas**
Physically motivated adsorption kinetics from the aqueous phase: hydrogen evolution and nitrate reduction to ammonia on transition metals

51. **Lucas Trigal, Gonzalo Manzano, Juan Fernández**
Inferencia de irreversibilidad en la movilidad urbana

52. **Adrián Nadal-Rosa, and Gonzalo Manzano**
Thermodynamic inference in molecular motors: A martingale approach

53. **Daniel Villarrubia Moreno, Javier Rodríguez Laguna, Silvia N. Santalla Arribas, Pedro Córdoba Torres**
Phase diagram of the first-passage percolation model

54. **David M. Carpio, José J. Ramasco, David Sánchez**
Social networks in online speech communities: An empirical analysis in the United Kingdom

55. **J. Grau-Climent, L. Garcia-Perez, R. Alonso-Sanz, Juan C. Losada**
Dynamics of the Cournot-Stackelberg quantum game

56. **Miguel Ángel Chamorro Burgos, Alvaro Domínguez**
Colloidal Monolayers: Compressible Hydrodynamics Breaks Fick's Law

57. **Manuel Suarez-Román, M. Ángeles Serrano, Yérali Gandica**
Self similarity in demonstrations online networks

58. **J. Vicens-Figueres, T.K.T Chou, A. Dau-Martinez, L. Galera-Laporta, G.M. Süel, J. García-Ojalvo**
Modeling mechanical interactions in microbial communities

59. **Pedro Jiménez-González, Miguel C. Soriano and Lucas Lacasa**
Chaos and its scalar embedding in neural network training

60. **Alejandro Diaz-Moreno, Sergio Alonso, L. Ramírez–Piscina**
From semimicroscopic ion-channel simulations to effective Markovian cooperative dynamics

61. **Daniela Molas, Daniel Campos**
Thinking fast and slow: imitation, personal information and noise in the Voter Model

62. **Michela Lapenna, Rita Fioresi, Bahman Gharesifard**
Sinkhorn doubly stochastic attention rank decay analysis

63. **Roberto Arévalo, Iker Zuriguel, Diego Maza**
Silo flow in the four-dimensional space

64. **Federico P. González, Javier Burguete**
A new experimental approach to study hemodynamic non-linear flows

65. **Luciano Stucchi, Carlos Olmedo-Castellanos, Mohamed Abdelaziz, Javier Galeano**
Reproductive Strategy Transitions in Erysimum spp.: A Population Dynamics Approach Using a Generalized Interaction Model

66. **Guilermo Benito-Calvino, Ahmed Boubrima, Alessandro Rezaglia, Herve Rivano**
Correlaciones espacio-temporales en la localización de fuentes de gas bajo flujos estocásticos

67. **Jorge García Inglés, Linda A. Zotti, Salvatore Assenza**
Amyloid fibril elasticity through thermal fluctuations in molecular dynamics simulations

68. **Pablo Catalán, Saúl Ares, Beatriz Pascual-Escudero, Ioannis Kontos, Pablo Laborda, José Ramón Valverde, José L. Martínez, Sara Hernando-Amado**
Exploiting outer-membrane channel promiscuity to induce transient collateral sensitivity in Pseudomonas aeruginosa

69. **J. Atienza-Barthelemy, J.C. Losada, and R.M. Benito**
The Role of Saturation in Information Diffusion on Social Media

70. **Matteo De Leonardis, Andrea Pagnani**
Modeling Protein Sequence Evolution as an Ornstein-Uhlenbeck Process in a Latent Space

71. **Daniel Téllez, M. Isabel García de Soria, Pablo Maynar, J. Javier Brey**
Breakdown of Hydrodynamics under Strong Confinement

72. **J.H. Kim, M. Mattei, D. Soriano-Paños, A. Arenas**
Intermediate phenotypic heterogeneity creates an optimal coexistence window in bacteria-phage communities

73. **E. Abad, A. Baumgaertner, S.B. Yuste**
Arrival statistics of diffusing walkers

74. **Antonio Gómez-Corral, Javier Jarillo**
Erlangian approximations of time-inhomogeneous continuous-time Markov chains with finite state space

75. **David Ortiz, Tobias Galla, Raúl Toral**
Anticipated synchronization in stochastic individual-based models

76. **Pablo Rosillo-Rodes, Santiago Lamata-Otín, Laurent Hébert-Dufresne, Peter Sheridan Dodds**
Prestige-driven dynamics to describe Pope name evolution / Dynamica praestigio impulsa ad evolutionem nominum pontificalium describendam

77. **Pablo Gallarta, Santiago Lamata Otín, Jesús Gómez Gardeñes, Cecilia Siliansky de Andreazzi**
Network structure and selective asymmetry drive coevolutionary fitness imbalances in antagonistic communities

78. **Pere Colet, Kristóf Benedek, Geza Odor, Damià Gomila**
Effect of size on transmission grid stability

79. **M. Mohedano-Muñoz, Javier Galeano, Irene Mendoza**
Re-evaluating the acoustic niche hypothesis

80. **Yago Casado Molinero**
Covalent frameworks for water purification of pharmaceutical contaminants

81. **Alberto Megías, David Alonso, Vicente J. Ontiveros, José A. Capitán**
Inference of Interactions and Coexistence Regimes in Ecological Communities with Annealed Disorder

82. **Juan Carlos Rodríguez Cabanillas, Manuel Alberto Matías Muriel, Alex Giménez Romero**
Temperature-driven within-host pathogen dynamics reshapes epidemic invasion in vector-borne plant diseases

83. **Alberto Antonioni, Alice Ciccone, Cloé Garnache, Sara Ghivarello, Askill H. Halse, Francesca Lipari**
How Pluralistic Ignorance and Social Norms Shape Public Support for Road Pricing

84. **Giancarlo Franzese**
Hydration water entropy controls sequestration in biomolecular condensates

85. **Enrique Rozas Garcia, Johannes Hofmann**
Thermal nucleation rate of a ferromagnetic superfluid

86. **Nathan Silvano, Emilio Hernández-García, Cristóbal López**
Continuum description of active proliferating matter

87. **Ivan Sevostianov, Damia Gomila, Pere Colet**
Synchronization of pulse-coupled oscillators in distributed power grid control

88. **Nathan O. Silvano, Emilio Hernandez-Garcia, Cristobal Lopez**
Impact of fluctuations on particle systems described by Dean-Kawasaki-type equations

89. **Juan Antonio Guevara Gil, Paula Sanchez Rego**
Explainability in Machine Learning: Comparing White-Box and Black-Box Models for Alzheimer's Disease Detection

Poster Session 3 - Viernes 16 de Octubre

90. **M. Carmen Miguel, David March Pons, Romulado Pastor-Satorras**
Phase transitions in collective decision-making of social animals

91. **A. Llamas-Jaramillo, I. Latella, D. Reguera**
Free-energy reconstruction from stable clusters (FRESC): A new method to evaluate nucleation barriers from simulation

92. **Consuelo Rojas, Ulrich Parlitz, Cristina Masoller**
Testing performance of Catch22 features in a time-series classification task

93. **Sergi Torres Serra, Mohammadreza Mokhtari, Cristina Masoller, Jordi Tiana Alsina, Apostolos Argyris, Miguel C. Soriano**
Delay Mismatches Between Three Synchronized Lasers Characterized by Fourier Spectral Analysis

94. **Dimitri Marinelli**
Kuramoto dynamics with sign flipping interactions

95. **Gerard Argany, Lucila Alvarez-Zuzek, Oriol Artime**
Opinion dynamics under large-scale exogenous events

96. **Oscar Ricardo Mejía Parra and Cristina Masoller**
Assessing Information Measures for Quantifying Spatial Heterogeneities in Laser Intensity Profiles Data

97. **Juan Gancio, Cristina Masoller, Ulrich Parlitz**
Characterizing anisotropy in excitable media using spatial permutation entropy

98. **Jonathan Diez**
Assessing infrastructural resilience under extreme weather events: a case study of the Valencian DANA

99. **Marina Martins Cano, Enrique Alvarez-Lacalle, Jean Bragard, Blas Echebarria**
Inference of Atrial Conduction Properties from Activation Time Measurements Using Computational Modelling and Finite Element Methods

100. **Martí Planasdemunt-Hospital, David Oriola**
Snap-Through Symmetry Breaking in Multicellular Aggregates

101. **Rubén Rodríguez-Casañ, Javier Borge-Holthoefer, and Francisco J. Vallés-Morán**
Flood Risk Reduction Model: A Network-Based Framework for Coordinating Local Hydraulic Resources During the 2024 Valencia DANA

102. **Axel Masó-Puigdellosas, David Romero, Josep Sardanyés**
Understanding complexity to analyze risk perception in mountain scenarios

103. **Jaume Ojer, David March-Pons, Michele Starnini**
From fiascos to sleeper hits: Predicting long-term movie reception patterns

104. **L. Ramírez-Piscina, J.M. Sancho**
Stochastic semi-microscopic modeling of different voltaje-gated channels

105. **Elena G. de Lamo, Oscar Sánchez, M Carmen Miguel, Romualdo Pastor-Satorras**
Information transfer between spatially separated fish schools

106. **Giacomo Bartolucci, Joan Termens, Ido Lavi, Jaume Casademunt**
Mixing of a passive scalar in active nematic turbulence

107. **Pedro Martínez Saiz, Marta Sales-Pardo, Roger Guimerà**
Modeling and prediction of chemical paths using graph and recurrent NNs

108. **Olga Bantysh, Ramon Reigada, Rodrigo C. V. Coelho, Pau Guillamat, Jordi Ignès-Mullol, Francesc Sagués**
Spatiotemporal self-patterning of an active fluid

109. **David March-Pons, Romualdo Pastor-Satorras, M. Carmen Miguel**
Symmetry breaking in collective decision-making through higher-order interactions

110. **Mikel Ocio-Moliner, Eulàlia Canals, Jordi Soriano**
Criticality in in silico neuronal networks

111. **Teresa Lázaro**
Probabilistic alignment in multiple connectome

112. **Sergio Alonso, Robert Grossmann, Carsten Beta**
Polarization and Locomotion Dynamics in Dictyostelium discoideum: A Study on Anomalous Diffusion

113. **Lluís Torres-Hugas, Ivan Kryven, Christian Bick**
Barrier pumping and basin erosion in slow-fast adaptive dynamics

114. **Arnau Prat Pou, Enrique Romero, Jordi Martí, Ferran Mazzanti**
Estudio de la criticalidad de las RBM usando AIS

115. **Judith López Zancajo, José María Sancho, Marta Ibañes**
Transcriptional dynamics induced by competition for resources

116. **Antoni Hernández-Fernández, Antonio J.Pons, Andrés Aragoneses**
Birth of Optical Linguistics: Bridging Quantitative Linguistics and Photonic Dynamics

117. **Enrique García-Ortiz, Marta Ibañes**
Self-organization at multistability guiding pattern formation?

118. **Javier Cristín**
Information Propagation in Starling Flocks

119. **Núria Velasco-Falguera, Isabel Serra, Álvaro Corral**
Fitting power-law regimes with loglog-concave distributions

120. **Àlex Giménez-Romero, Elena del Campo, Manuel A. Matías**
Inferring seagrass meadow resilience from self-organized spatial patterns

121. **Sylvain Sylvestre Icaro Hamers, Eva Llabres, Tomas Sintes**
Ecological impact of the invasive Percnon gibbesi: A Model of Herbivory-Driven Halo Formation in Mediterranean Rocky Habitats

122. **Arnau Vivet, Alex Arenas**
Emergent Self-Attention from Astrocyte-Gated Associative Memory Dynamics

123. **Daniel Campos, Javier Cristín, Vicenç Méndez**
Unified Optimization Mechanism in Stochastic Resetting and Dynamic Redundancy

124. **Joan Josep Cerdà; Alberto Fuster-Aparisi**
Field-Controlled Polymer Brushes and Endothelial Glycocalyx Models: From Tunable Depletion Forces to Particle Transport Under Flow

125. **Giulio Burgio, Alvaro Sanchez**
Biodiversity–ecosystem functioning relationships as spectra of aggregated interactions

126. **Francesca Dilisante, Pablo Gallarta-Sáenz, Jesús Gómez-Gardeñes, Luciano Stucchi, Sandro Meloni**
Evolutionary game dynamics as a mechanism for robust packet routing on scale-free networks

127. **Mara Maza-Cuello, Guillaume Briand, Órlaith Skelton, Alberto Fernandez-Nieves**
Salt-induced structural changes of alginate gels

128. **Sara Oliver-Bonafoux, Javier Aguilar, Tobias Galla, Raúl Toral**
Noise structure shapes transition pathways in cell-type switching processes

129. **Santiago Lamata-Otín, Alex Arenas, Jesús Gómez-Gardeñes, David Soriano-Paños**
Interplay between evolutionary and epidemic time scales challenges the outcome of control policies

130. **Santiago Lamata-Otín, Federico Malizia, Leah A. Keating, Guillaume St-Onge, Vito Latora, Jesús Gómez-Gardeñes, Laurent Hébert-Dufresne**
Group dynamics shape contagion onsets and multistable active phases under collective reinforcement

131. **Luis E. Castro-Anaya, Allan D. Mackie**
Modeling Polymeric Mixed Micelles via Coarse-Grained Single-Chain Mean Field Theory

132. **Piergiorgio Castioni, Chiara Poletto, Alex Arenas**
Lifetime patterns of reinfections: epidemic cohorts as traveling waves

133. **Nagi Khalil**
Soluciones normales locales de la ecuación cinética de Boltzmann