XIV GEFENOL-DIFENSC
Summer School on Statistical Physics of Complex Systems
Alcalá de Henares, July 6-17, 2026

(Not so) flash talks

Duration: 10min + 5min (questions)

First week:

1. Antonio Cáceres Gómez
   A Brief Overview of the Moment Derivative and Associated Operators

2. Elena García de Lamo
   Information transfer between spatially separated fish schools

3. Frank Hause
   Knowledge-Based Gene Set Intersection Graphs Reveal Functional Master Regulators by Measures of Centrality and Self-Similarity

4. Antonio Juárez
   Universality and properties of compartmentalization and complex-formation mechanisms in cell signalling pathways

5. David March Pons
   Symmetry breaking in collective decision-making through higher-order interactions

6. Juan Pablo Miranda López
   Geometrical entanglement and alignment regulate self-organization in active ring polymer suspensions

7. Sergio Zucchi Mesia
   Weak Coupling Insensitivity of the Lyapunov Exponent to Coupling Asymmetry in the Fully Disordered Kuramoto Model

8. Gemma Navarro Martínez
   Physical growth constraints modulate proliferation-differentation dynamics during zebrafish development

Second week:

1. Orso Birelli Schmid
   Deep Learning Segmentation of Thermo-Diffusively Unstable Premixed Spherical Flames

2. Manuel Serrano Pastor
   Predictive and Explainable Approach to Mycotoxin Detection in Figs using Machine Learning and Deep Learning