Instituto Universitario de Investigación
Biocomputación y Física de Sistemas Complejos
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Pablo Gallarta Sáenz

PhD student in the Physics Program at the University of Zaragoza, with the title Reaction-diffusion-evolution processes in complex systems, under the supervision of Jesús Gómez Gardeñes. After finishing her degree in Physics, he joined the GOTHAM group, participating in its different research lines, particularly in the field of social and ecological dynamics. He is an active member of BIFI since 2023.

Researcher profile

Currently, he is a researcher level R1, and his thesis is mainly based on theoretical ecology, with the aim of trying to understand what is the impact of structural changes that occur in ecosystems in the transmission of diseases between animal species and the emergence of zoonotic diseases. In addition, he is involved in research that studies, through an agent-based model, how innovations (whether cultural or technological) spread within a society represented by a complex network.

Importance of his research

Having mathematical models and tools to study disease transmission can be very useful to implement different measures without the need for extensive and resource-consuming field studies. In addition, the exploration of different ecological scenarios from a computational point of view gives an advantage for predicting or understanding the behavior of ecosystems, by performing the study under a controlled environment and from which results can be extracted that can be easily transferred to real situations.