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He is a Juan de la Cierva researcher at Universitat Rovira i Virgili, and a member of the GOTHAM group within BIFI since 2017. He defended his thesis entitled Physics of interdependent systems, at the University of Zaragoza in 2021 and, afterwards, before joining the Universitat Rovira i Virgili in 2024, he was an independent postdoctoral researcher at the Instituto Gulbenkian de Ciência, in Portugal.

Researcher profile

He is currently working on his own line of research, in which he tries to characterize how the evolution of a virus influences the emergence of multiple variants of a disease during an epidemic outbreak or the persistence of diseases in the population. This problem is framed in the central research line of his research career: the application of complex systems physics and network science for epidemic modeling.

Importance of his research

Epidemic modeling is important to obtain reliable predictions about the progress of an epidemic outbreak and so design policies to minimize it. In one of their papers they proposed a model that captured the spatial distribution of dengue cases in Santiago de Cali. The results provided a guide to control dengue outbreaks. They also developed an epidemic model that reproduced the trajectories of the COVID-19 pandemic that helped reduce its impact.