

STRUCTURAL STABILITY OF INFINITE-DIMENSIONAL DYNAMICAL SYSTEMS. SOME APPLICATIONS TO REAL PHENOMENA

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In the first part of this talk we will present a review on main results on structural stability of dynamical systems associated to PDEs. The stability of the attractor characterization under autonomous and non-autonomous perturbation is one of the main topics pointing the importance of global attractors for the analysis of dissipative differential equations. In particular, we will introduce the concepts of informational structures and fields as proper tools to analyze dynamics on cooperative complex networks. Some applications to real phenomena in Theoretical Ecology and Neuroscience will be addressed.

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