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PROJECTIONS OF A HURRICANE SIMULATION
CHAPTER 16 LINEAR AND NONLINEAR NUSSELT NUMBER MEASUREMENTS DURING ELECTROCONVECTION OF A LIQUID CRYSTALCHAPTER 17 CHARACTERIZATIONS OF FAR FROM EQUILIBRIUM STRUCTURES USING THEIR CONTOURS; CHAPTER 18 DYNAMICS NEAR ROBUST HETEROCLINIC CYCLES; CHAPTER 19 INTERNAL DYNAMICS OF INTERMITTENCY; CHAPTER 20 EXPERIMENTS WITH DICTYOSTELIUM DISCOIDEUM AMOEBAE IN DIFFERENT GEOMETRIES; INDEX

Sommario/riassunto

Understanding the spontaneous formation and dynamics of spatiotemporal patterns in dissipative nonequilibrium systems is one of the major challenges in nonlinear science. This collection of expository papers and advanced research articles, written by leading experts, provides an overview of the state of the art. The topics include new approaches to the mathematical characterization of spatiotemporal complexity, with special emphasis on the role of symmetry, as well as analysis and experiments of patterns in a remarkable variety of applied fields such as magnetoconvection, liquid crystals, gran