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PERTURBATION OF DYNAMICAL SYSTEMS DEFINED BY SEMILINEAR PARABOLIC PROBLEMS

In this talk we analyze the dynamics of flows generated by a class of dissipative semilinear parabolic problems when some parameters of the equation vary in a topological space. We establish abstract results and apply them to partial differential equations with nonlinear boundary conditions when (i) the domain of definition of the solutions vary with respect to the action of diffeomorphisms, and (ii) when some reaction and potential terms of the equation are concentrating in a narrow strip of a portion of the boundary of the domain of the solutions. Our main goal is to discuss the continuity of the nonlinear semigroup, as well as, the upper and lower semicontinuity of the family of attractors.

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