Attractors for Dissipative Fourth Order Problems in $\mathbb{R}^N$

Radosław Czaja
University of Silesia in Katowice (Poland)

radoslaw.czaja@us.edu.pl

Abstract

We consider a Cauchy problem for a dissipative fourth order parabolic equation in $\mathbb{R}^N$ with a general potential. Using the quasi-stability method by Chueshov and Lasiecka we estimate from above fractal dimension of a global attractor. We also show that it is contained in a finite dimensional exponential attractor. This is a joint work with Jan W. Cholewa (University of Silesia in Katowice) based on the article

Jan W. Cholewa, R. Czaja, On fractal dimension of global and exponential attractors for dissipative higher order parabolic problems in $\mathbb{R}^N$ with general potential, in *Contemporary Approaches and Methods in Fundamental Mathematics and Mechanics*, Understanding Complex Systems, Victor A. Sadovnichiy, Michael Z. Zgurovsky (Eds.), Springer, 2021, pp. 293-314.