

THE FINITE HAUSDORFF AND FRACTAL DIMENSIONS OF THE GLOBAL ATTRACTOR FOR A CLASS KIRCHHOFF-TYPE EQUATIONS

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ABSTRACT

In this paper, we study the Hausdorff and Fractal dimensions of the global attractor for a class Kirchhoff-type equations with strongly damped terms and source terms. We testify the dynamical system associated with above-mentioned models is Frechet differential under suitable conditions. Furthermore, we obtain a precise estimate of Hausdorff and Fractal dimensions of the global attractor.

Keywords: Kirchhoff-type equations; The global attractor; Frechet differential; Hausdorff and Fractal dimensions.

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