THE GLOBAL ATTRACTOR FOR A CLASS OF COUPLED KIRCHHOFF-TYPE EQUATIONS

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ABSTRACT

In this paper, we study the longtime behavior of solution to the initial boundary value problem for a generalized Kirchhoff type system equations with strongly damped terms and force terms. At first, we get some priori estimates under the proper assumptions. Further, we prove the existence and uniqueness of the solutions of system equations by the Galerkin's method. At last, we obtain the existence of the global attractor in $H_0^1(\Omega) \times H_0^1(\Omega) \times L^2(\Omega) \times L^2(\Omega)$.

Keyword : The long time behavior of solution, the existence and uniqueness of solutions, the global attractor.
2010 Mathematics classification:35B41,35K41