Attractors for Nonlinear Viscoelastic Equations with Memory

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Abstract: We consider the memory relaxation of an Euler-Bernoulli plate equation with nonlinear source term and internal frictional damping of arbitrary polynomial growth. The main focus is analyzing the asymptotic behavior of the solutions. Hence, we firstly show the existence of a global attractor for the associated dynamical system. Then, we establish the optimal regularity of the attractor for a larger class of memory kernels and nonlinearities.