

Chen, Wenjing; Zhou, Ting

Existence of solutions for p -Laplacian parabolic Kirchhoff equation. (English) Zbl 1476.35129
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Summary: In this paper, by the Leray-Schauder principle, we study the existence of solutions for the following p -Laplacian Kirchhoff equation

$$u_t - (1 + \|\nabla u\|_{L^p(\Omega)}^p) \Delta_p u + g(u) = 0$$

on a bounded domain $\Omega \subset \mathbb{R}^N$ with initial-boundary conditions.

MSC:

35K92 Quasilinear parabolic equations with p -Laplacian

35K20 Initial-boundary value problems for second-order parabolic equations

35R09 Integro-partial differential equations

Keywords:

quasilinear parabolic equation; Kirchhoff problem; existence of solutions; Leray-Schauder principle

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