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Existence and blow-up studies of a $p(x)$ -Laplacian parabolic equation with memory

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Abstract

In this paper, we establish existence and finite time blowup of weak solutions of a parabolic equation of $p(x)$ -Laplacian type with the Dirichlet boundary condition. Moreover, we obtain upper and lower bounds for the blow-up time of solutions, by employing concavity method and differential inequality technique, respectively.

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