ANISOTROPIC PARABOLIC EQUATIONS WITH VARIABLE NONLINEARITY

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Abstract ____

We study the Dirichlet problem for a class of nonlinear parabolic equations with nonstandard anisotropic growth conditions. Equations of this class generalize the evolutional p(x,t)-Laplacian. We prove theorems of existence and uniqueness of weak solutions in suitable Orlicz-Sobolev spaces, derive global and local in time L^∞ bounds for the weak solutions.

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 $Key\ words.$ Nonlinear parabolic equation, nonstandard growth conditions, anisotropic nonlinearity.

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