

Quasilinear Parabolic Problems in Unbounded Domains

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The model problem is given by the heat equation for the p -Laplace operator plus a nonlinear term depending on the gradient up to the power p . The equation is set on a general domain Ω which may be unbounded and the boundary conditions are of Dirichlet type for example. Depending on the integrability of the right hand side we give existence results for solutions which may be of finite energy, or of local finite energy, bounded or unbounded.