

L. E. Payne, G. A. Philippin and S. Vernier-Piro, **Blow up, decay bounds and continuous dependence inequalities for a class of quasilinear parabolic problems**, *Math. Meth. Appl. Sci.*, 29 (2006), 281–295.

Abstract

This paper deals with a class of semilinear parabolic problems. In particular, we establish conditions on the data sufficient to guarantee blow up of solution at some finite time, as well as conditions which will insure that the solution exists for all time with exponential decay of the solution and its spatial derivatives. In the case of global existence, we also investigate the continuous dependence of the solution with respect to some data of the problem.