Electronic Journal: Southwest Journal of Pure and Applied Mathematics
Internet: http://rattler.cameron.edu/swjpam.html
ISBN 1083-0464
Issue 1 July 2000, pp. 55 – 73
Submitted: May 27, 1999. Published: July 15, 2000

PERIODIC SOLUTIONS OF QUASILINEAR EQUATIONS WITH DISCONTINUOUS PERTURBATIONS

Janete Crema and José Luiz Boldrini

Abstract. The present study deals with the existence of periodic solutions of equation $u_t - \Delta_p u = F(t,u)$, where $\Delta_p u = div\left(|\nabla u|^{p-2}\nabla u\right)$ is the p-Laplacean, with Dirichlet boundary condition, and when F undergoes abrupt changes depending on u. An abstract result generalizing this situation is also presented.

1991 A.M.S. (MOS) Subject Classification Codes. 35K55, 35B10

Key words and phrases. Quasi-Parabolic Equations, Periodic Solutions, p-Laplacean, Discontinuous Perturbations.

Janete Crema, USP - ICMC; CP 668; 13560-970 São Carlos, SP,Brazil
José Luiz Boldrini, UNICAMP-IMECC; CP 6065 13083-970 Campinas, SP, Brazil
E-mail: boldrini@ime.unicamp.br