



**EXISTENCE OF EXTREMAL SOLUTIONS FOR NONLINEAR  
IMPULSIVE DIFFERENTIAL EQUATIONS WITH  
 $p$ -LAPLACIAN OPERATOR AND NONLINEAR  
BOUNDARY CONDITIONS**

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**Abstract**

This paper is concerned with the existence of solutions for impulsive functional differential equations with one-dimensional  $p$ -Laplacian operator and nonlinear boundary conditions. By establishing appropriate comparison principle and using monotone iterative technique, we obtain sufficient conditions for the existence of extremal solutions.

**Keywords and phrases:** impulsive differential equations,  $p$ -Laplacian operator, nonlinear boundary conditions, upper and lower solutions, monotone iterative technique.

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