Documents

Ahmad, B.[a] , Nieto, J.J.[b]
Existence of solutions for impulsive anti-periodic boundary value problems of fractional order

[a] Department of Mathematics, Faculty of Science, King Abdulaziz University, P. O. Box 80203, Jeddah 21589, Saudi Arabia
[b] Departamento de Análisis Matemático, Facultad de Matemáticas, Universidad de Santiago de Compostela, 15782 Santiago de Compostela, Spain

Abstract
In this paper, we prove the existence of solutions for impulsive differential equations of fractional order $q \in (1, 2]$ with anti-periodic boundary conditions in a Banach space. Our study is based on the contraction mapping principle and Krasnoselskii's fixed point theorem.

Author Keywords
Anti-periodic boundary conditions; Existence; Fixed point theorem; Fractional differential equations; Impulse

Document Type: Article
Source: Scopus