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EXISTENCE OF SOLUTION FOR IMPULSIVE FRACTIONAL DIFFERENTIAL EQUATIONS VIA TOPOLOGICAL DEGREE METHOD

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Abstract

This paper is studied the existence of a solution for the impulsive Cauchy problem involving the Caputo fractional derivative in Banach space by using topological structures. We based on using topological degree method and fixed point theorem with some suitable conditions. Further, some topological properties for the set of solutions are considered. Finally, an example is presented to demonstrate our results.

Keywords

Impulsive differential equations; Topological properties of mappings; Fixed point and coincidence theorems

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