

A Cauchy Problem for Abstract Fractional Integrodifferential Equations with Infinite Delay

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Abstract

The aim of this paper is to prove the existence and uniqueness of mild solutions of a Cauchy problem for abstract fractional integrodifferential equations with infinite delay. Several theorems are established by using contraction mapping principle.

Mathematics Subject Classification: 39B52, 26A33

Keywords: Fractional differential equation, infinite delay, mild solution

1. Introduction

The purpose of this paper is to study the existence of the mild solution of the following Cauchy problem for abstract fractional integrodifferential equation with infinite delay: