

[Aissani, Khalida](#); [Benchohra, Mouffak](#)

Semilinear fractional order integro-differential equations with infinite delay in Banach spaces. (English) [Zbl 1299.26008](#)

Arch. Math., Brno 49, No. 2, 105-117 (2013).

The authors establish a sufficient condition for the existence of a mild solution for a nonlinear fractional integro-differential equation with infinite time delay. The fractional derivative is considered in the sense of Caputo of order $q \in (0, 1)$. The argument is based on the fixed point theorem.

Reviewer: [Roman Šimon Hilscher \(Brno\)](#)

MSC:

[26A33](#) Fractional derivatives and integrals

[34G20](#) Nonlinear differential equations in abstract spaces

[34K30](#) Functional-differential equations in abstract spaces

[34K37](#) Functional-differential equations with fractional derivatives

Cited in **2** Documents

Keywords:

semilinear differential equations; Caputo fractional derivative; mild solution; measure of noncompactness; fixed point; semigroup; Banach space

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