

**Seba, Djamila**

**Nonlinear fractional differential inclusion with nonlocal fractional integro-differential boundary conditions in Banach spaces.** (English) [Zbl 06770148](#)

*Math. Bohem.* 142, No. 3, 309-321 (2017).

**Summary:** We consider a nonlinear fractional differential inclusion with nonlocal fractional integro-differential boundary conditions in a Banach space. The existence of at least one solution is proved by using the set-valued analog of Mönch fixed point theorem associated with the technique of measures of noncompactness.

**MSC:**

**34** Ordinary differential equations

**26A33** Fractional derivatives and integrals

**34A60** Ordinary differential inclusions

**34B15** Nonlinear boundary value problems for ordinary differential equations

**Keywords:**

differential inclusion; Caputo fractional derivative; nonlocal boundary conditions; Banach space; existence; fixed point; measure of noncompactness

**Full Text:** [DOI](#)