Initial value problem for a fractional neutral differential equation with infinite delay

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Abstract

We consider the initial value problem for a class of nonlinear fractional neutral functional differential equations with infinite delay involving the standard fractional derivative in the sense of Caputo. By using a variety of tools of fractional calculus including the Banach contraction principle and the Schaefer fixed point theorem, the existence, uniqueness and continuous dependence results are obtained in the space of continuous functions.

Keywords

fractional functional differential equations ; fractional derivative and fractional integral ;

existence and continuous dependence ; fixed point theorem

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References

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