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Existence and uniqueness of solutions for a class of Riemann-Liouville fractional differential equation based on set $P_{h,e}$. (Chinese. English summary) [Zbl 07366858]

Summary: Based on a class of mixed monotone fixed point theorems on the set $P_{h,e}$, the two-point boundary value problem of a class of Riemann-Liouville fractional differential equations is studied in this paper. The existence and uniqueness of the solution in the set $P_{h,e}$ are obtained, and the unique nontrivial solution of the equation is approximated by a set of monotone iterative sequences. Finally, an example is used to verify the main conclusion.

MSC:
34A08 Fractional ordinary differential equations
34B15 Nonlinear boundary value problems for ordinary differential equations

Keywords:
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