The existence and uniqueness of fractional boundary value problems of the Riesz-Caputo differential equations with nonlocal conditions

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Abstract

By using the fixed point theorems, we give sufficient conditions for the existence and uniqueness of solutions for the nonlocal fractional boundary value problem of nonlinear Riesz-Caputo differential equation. The boundedness assumption on the nonlinear term is replaced by growth conditions or by a continuous function. Finally, some examples are presented to illustrate the applications of the obtained results.

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