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Nonlinear Boundary Value Problem of Fractional Differential Equations with Arguments under Integral Boundary Condition

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Abstract

In this paper, we develop the existence and uniqueness theory of fractional differential equation involving Riemann-Liouville differential operator of order $0 < \alpha < 1$, with advanced argument under integral boundary condition. We show the uniqueness of solution by using Banach fixed point theorem with a weighted norm. We apply the comparison result and obtain the existence and uniqueness of solution by monotone iterative technique also by use weakly coupled extremal solution of (1.1).

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