Successive approximations to solve higher order fractional differential equations

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Abstract: In this talk, we discuss the existence and uniqueness of solution of an initial value problem for fractional differential equation involving higher order Caputo's fractional derivative. We transform the posed problem to a Volterra integral equation, then under Krasnoselskii-Krein type conditions and by using successive approximations, we discuss the existence and uniqueness questions.

Keywords: Fractional differential equation, Existence of solution.

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