

## عنوان مقاله:

A NUMERICAL APPROXIMATION FOR SOLVING THE FRACTIONAL-ORDER RICCATI EQUATION

## محل انتشار:

اولین کنفرانس بین المللی مسائل مقدار مرزی و کاربردها (سال: 1397)

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## خلاصه مقاله:

In this paper, is proposed a numerical approximation for solving fractional Riccati equation. The our numerical method is based on fractional-order Muntz-Legendre functions to obtain a numerical approximation of unknown functions. Also we use Caputo fractional derivative for fractional calculus. Finally, by applying the collocation method, The Riccati equation lead to a system of algebraic equations that easily solvable. Some numerical examples Show the efficiency and accuracy of the present method.

## کلمات کلیدی:

Fractional Muntz-Legendre Functions (FMLFs), Fractional-order Riccati Equation (FRE), Caputo Fractional Derivative

## لینک ثابت مقاله در پایگاه سیویلیکا:

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