

عنوان مقاله:

A numerical method based on Chebyshev polynomials for solving a class of fuzzy Fredholm integro-differential equations of fractional orders

محل انتشار:

سومین کنفرانس سیستم های تصمیم گیری هوشمند (سال: 1397)

تعداد صفحات اصل مقاله: 13

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خلاصه مقاله:

In this paper, first, we introduce a new classes of fuzzy fractional Volterra-Fredholm integro-differential equations as where the operator gHD_q is a differential operator in the sense of a given fractional derivative of order q . Then, we present a new approach based on the fuzzy Chebyshev pseudo-spectral numerical method to solve linear and nonlinear fractional-order integro-differential equations of Volterra type. Finally, some fractional differential equations are provided and analyzed numerically.

کلمات کلیدی:

Fuzzy fractional-order integro differential equations of Volterra type; Fractional derivative; Generalized Hukuhara differentiability; Generalized fuzzy Caputo differentiability

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