APPLICATION OF RKHeM METHOD FOR SOLVING DELAY DIFFERENTIAL EQUATIONS WITH CONSTANT LAGS

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ABSTRACT

This paper presents RK method based on Heronian mean for solving Delay differential equations with constant lags (delays). The delay term is approximated by using linear and Lagrange interpolation. Two numerical examples have been considered to illustrate the effectiveness of this method. The numerical results are also compared with RK method based on Arithmetic mean.

KEYWORDS: Delay Differential Equations, Constant Delay, Multiple delays, IVP, RKAM, RKHeM