SOLVING DELAY DIFFERENTIAL EQUATIONS BY ABOODH TRANSFORMATION METHOD

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ABSTRACT

The solution for delay differential equations (DDEs) is achieved by implementing Aboodh transformation method and its properties on the given DDEs, with its unique formula to deal with non-linear terms and its high-level accuracy, but without recognizing restricted transformations, perturbation, linearization or discretization. According to the numerical evidences, the Aboodh transformation method converges favourably to the analytical solution. Maple 18 software is used for all computational frameworks..

KEYWORDS: Aboodh Transforms, Delay Differential Equation, Approximate Solution, Partial Derivatives