عنوان مقاله:

On Pade Spproximation of Some Practical Functions

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خلاصه مقاله:

The pade approximation of e(Tz) has special importance in some engineering problems such as investigation of linear time-delayad systems. In this paper a novel method is introduced to construct pade approximation form of some practical functions, such as e(z), (1-z)α (1+z)β with non-integers α and β, 1n(1+z) and (1+z)β with non-integer β. This method gives a new closed from of Pade approximate of these functions by orthogonal polynomials. It interoduces also a novel method to reduce the order of an ordinary differential equation. In other words, the method of this paper presents a new method to approximate the solution of an n-order ordinary differential equation by an (n-1)-order order ordinary differential equation.

کلمات کلیدی:

Pade approximation, Difference calculus

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