

This is a review text file submitted electronically to MR.

Reviewer: Znojil, Miloslav

Reviewer number:

Address:

Nuclear Physics Institute,
250 68 Rez,
Czech Republic
znojil@ujf.cas.cz

Author: Gulsu, Mustafa; Sezer, Mehmet; Tanay, Bekir

Short title: A matrix method for solving high-order linear difference equations with mixed argument using hybrid Legendre and Taylor polynomials.

MR Number: 2277328

Primary classification: 39A10

Secondary classification(s): 65Q05

Review text:

Approximate numerical solutions $y(x)$ of nonhomogeneous linear difference equations on an interval $[-1,1]$ are proposed to be sought in the form of expansions in terms of Legendre polynomials. A very routine exercise, with many formulae displayed but with no theoretical analysis of errors offered. Maple 9 is used to illustrate this virtually elementary idea by four examples of the first and second order with constant coefficients. In this sense the title (which contains the words like “matrix method”, “higher-order”, “mixed argument” and “hybrid polynomials”) is unbelievably misleading.