

**Kalajda, A. F.; Yudenko, G. P.**

**Solution of a boundary value problem for a second order differential equation with retarding argument by matrix methods.** (English) [Zbl 0634.65068](#)

Vychisl. Prikl. Mat., Kiev 58, 19-24 (1986).

Summary: Zero rank matrix algorithms of numerical differentiation are applied to construct effective numerical-analytical methods, so called matrix methods, of zero rank. The constructed methods obtain eigenvalues and eigenfunctions of boundary value problems for second order differential equations with retarding argument. The suggested methods are investigated.

**MSC:**

[65L10](#) Numerical solution of boundary value problems involving ordinary differential equations

Cited in 1 Review

[34K05](#) General theory of functional-differential equations

**Keywords:**

Zero rank matrix algorithms; numerical differentiation; numerical-analytical methods; second order differential equations