

Baker, Garth A.; Dougalis, Vassilios A.; Serbin, Steven M.

An approximation theorem for second-order evolution equations. (English) Zbl 0445.65075
Numer. Math. 35, 127-142 (1980).

For a scan of this review see the [web version](#).

MSC:

- 65L05 Numerical methods for initial value problems
- 35L20 Initial-boundary value problems for second-order hyperbolic equations
- 34G10 Linear differential equations in abstract spaces
- 65J10 Numerical solutions to equations with linear operators (do not use 65Fxx)
- 41A20 Approximation by rational functions

Cited in **13** Documents

Keywords:

evolution equations of the second order; rational approximations to cos tau; Hilbert space

Full Text: [DOI](#) [EuDML](#)

References:

- [1] Baker, G.A., Bramble, J.H.: Semidiscrete and single step fully discrete approximations for second-order hyperbolic equations. RAIRO Analyse Numérique13, 75-100 (1979) · [Zbl 0405.65057](#)
- [2] Crouzeix, M.: Sur l'approximation des équations différentielles opérationnelles linéaires par des méthodes de Runge-Kutta. Thèse, Université Paris VI, 1975
- [3] Kreĭn, S.G.: Linear differential equations in Banach space. Transl. Math. Monographs Vol.29, American Mathematical Society, Providence, R.I., 1971
- [4] Serbin, S.M.: Rational approximations of trigonometric matrices with applications to second-order systems of differential equations, Appl. Math. Comput.5, 57-92 (1979) · [Zbl 0408.65047](#) · [doi:10.1016/0096-3003\(79\)90011-0](#)

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