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**Spectrum of the Jacobi tau approximation for the second derivative operator.** (English)

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**MSC:**

**65L15** Numerical solution of eigenvalue problems involving ordinary differential equations

Cited in **11** Documents

**34L16** Numerical approximation of eigenvalues and of other parts of the spectrum of ordinary differential operators

**35K05** Heat equation

**65M70** Spectral, collocation and related methods for initial value and initial-boundary value problems involving PDEs

**Keywords:**

Jacobi polynomials; Gegenbauer polynomials; stable polynomials; positive pairs; zeros of polynomials; spectral methods; Chebyshev tau method; Legendre tau method; diffusion equation; Jacobi tau method; Gegenbauer tau method; Galerkin methods

**Full Text:** [DOI](#) [arXiv](#)