New Developments in the Numerical Solution of Sturm-Liouville Problems by High Order Finite Difference Schemes

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The matlab code HOFiD (based on high order finite difference schemes) has been successfully used to solve several kind of Sturm-Liouville and Multiparameter Spectral problems [1, 2].
Starting from the research in [3], we now propose an update in order this code also solves problems with trapezoidal or piecewise continuous potentials as well as eigenparameter-dependent boundary conditions.

References

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[3] D. Giordano, P. Amodio, F. Iavernaro, *A careful reexamination of square-well potentials*, in progress.