COMPUTING THE $S$–NUMERICAL RANGES OF DIFFERENTIAL OPERATORS

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Abstract. Following a number of recent studies of $S$-numerical range, we study the problem of computing the $S$-numerical range numerically for differential operators and block differential operators, particularly these of Sturm-Liouville type, Hain-Lüst type and Stokes type.


Keywords and phrases: Operator matrices, block operator matrices, $S$-numerical range, finite difference, Sturm-Liouville operator, Hain-Lüst operator, Stokes operator.

REFERENCES