FREDHOLM STABILITY RESULTS FOR LINEAR COMBINATIONS OF m–POTENT OPERATORS

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Abstract. We investigate the stability of the nullity, defect and index of linear combinations \( uA + vB \) of generalized quadratic operators, extending in several directions the recent results of Gau, Wang and Wong (Oper. Matrices 2 (2008), 193–199), and of commuting scalar \( m \)-potent operators. For the latter case we prove that the nullspaces of \( uA + vB \) themselves are also stable.

Keywords and phrases: Fredholm operator, stability, scalar \( m \)-potent operator, quadratic operator.

REFERENCES