SPECTRAL PROPERTIES OF NORMAL OPERATORS HAVING SYMMETRIES ARISING FROM CONJUGATIONS

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Abstract. We study the consequences of equations such as \( AB = BA \) and \( AB = BA^* \) on the spectrum of \( B \) when \( A \) is a normal operator that is real or complex skew-symmetric. Our main result is a spectral pairing theorem for such operators which generalizes results about normal matrices obtained in [11]. Important tools used are the properties of conjugations and complex symmetric operators. This paper continues the study initiated in [14].


Keywords and phrases: Normal operator, antiunitary operator, conjugation operator, complex symmetric operator.

REFERENCES