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TRACIAL NUMERICAL RANGES AND LINEAR DEPENDENCE OF OPERATORS*

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Abstract. Linear dependence of two Hilbert space operators is expressed in terms of equality in modulus of certain sesquilinear and quadratic forms associated with the operators. The forms are based on generalized numerical ranges.

Key words. Hilbert space, Linear operators, Linear dependence, Generalized numerical range.

AMS subject classifications. 15A03, 47A12, 47A99.

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