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OPERATOR RADII AND UNITARY OPERATORS

TSUYOSHI ANDO AND CHI-KWONG LI

Abstract. Let $\rho \geqslant 1$ and $w_\rho(A)$ be the operator radius of a linear operator A. Suppose m is a positive integer. It is shown that for a given invertible linear operator A acting on a Hilbert space, one has $w_\rho(A^{-m}) \geqslant w_\rho(A)^{-m}$. The equality holds if and only if A is a multiple of a unitary operator.

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