BOUNDS OF NUMERICAL RADIUS OF BOUNDED LINEAR OPERATORS USING \( t \)-ALUTHGE TRANSFORM

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Abstract. We develop a number of inequalities to obtain bounds for the numerical radius of a bounded linear operator defined on a complex Hilbert space using the properties of \( t \)-Aluthge transform. We show that the bounds obtained are sharper than the existing bounds.


Keywords and phrases: Numerical radius, Aluthge transform, bounded linear operator, operator inequality.

REFERENCES