OPERATOR INEQUALITIES VIA GEOMETRIC CONVEXITY

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Abstract. The main goal of this paper is to present new generalizations of some known inequalities for the numerical radius and unitarily invariant norms of Hilbert space operators. These extensions result from a special treatment of both convex and geometrically convex functions. In the end, we present several scalar inequalities for geometrically convex functions similar to those inequalities known for convex functions.

Keywords and phrases: Geometrically convex function, operator norm, norm inequality, numerical radius.

REFERENCES