

NUMERICAL RADIUS INEQUALITIES FOR HILBERT SPACE OPERATORS

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Abstract. In this article, we give several inequalities involving powers numerical radii and the usual operator norms of Hilbert space operators. In particular, if A_i , B_i and X_i are bounded linear operators ($i = 1, 2, \dots, n \in \mathbb{N}$), then we estimate the norm as well as the numerical radius to $\sum_{i=1}^n X_i A_i^m B_i$ for some $m \in \mathbb{N}$.

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