

## AN INEQUALITY FOR MATRIX OPERATORS AND ITS APPLICATIONS

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*Abstract.* In this paper, we prove a simple inequality which plays important role in the summability theory, matrix operators theory, approximation theory, and also provides great convenience in computations. As a corollary, we give the well known results of [1, 2, 5] under some simpler conditions, and a very short and different proofs of results in [6, 7].

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