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SOME INEQUALITIES FOR THE KHATRI-RAO PRODUCT OF MATRICES*

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Abstract. Several inequalities for the Khatri-Rao product of complex positive definite Hermitian matrices are established, and these results generalize some known inequalities for the Hadamard and Khatri-Rao products of matrices.

Key words. Matrix inequalities, Hadamard product, Khatri-Rao product, Tracy-Singh product, Spectral decomposition, Complex positive definite Hermitian matrix.

AMS subject classifications. 15A45, 15A69

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