NOTE ON SOME UPPER BOUNDS FOR THE CONDITION NUMBER

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Abstract. In this letter, some lower bounds for the smallest singular value of the nonsingular matrix are established. In addition, we also proposed some upper bounds on the condition number of a matrix which are the better than the bound proposed by Guggenheimer et al. [College Math. J. 26(1) (1995) 2-5]. To illustrate our bounds, some examples are also given.

Keywords and phrases: singular value; condition number; Frobenius norm; nonsingular matrix.

REFERENCES