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Some Simple Estimates for the Singular Values of Matrices

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摘要 We first provide a simple estimate for $\|A^{(-1)}\|_{\infty}$ and $\|A^{(-1)}\|_1$ of a strictly diagonally dominant matrix A. On the Basis of the result, we obtain an estimate for the smallest singular value of A. Secondly, by scaling with a positive diagonal matrix D, we obtain some simple estimates for the smallest singular value of an H-matrix, which is not necessarily positive definite. Finally, we give some examples to show the effectiveness of the new bounds.

关键词 [Singular value estimates](#) [H](#) [-matrix](#)

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