OPTIMAL GERŠGORIN-STYLE ESTIMATION OF THE LARGEST SINGULAR VALUE∗

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Abstract. In estimating the largest singular value of an \( n \)-by-\( n \) complex matrix, a prior result [7] shows that it is attained at one of \( n(n-1) \) sparse matrices in the equiradial class. Here, circumstances are identified under which the set of possible optimizers can be further narrowed. The results used to show this may be of independent interest.

Key words. Equiradial class; Geršgorin data; Singular values; Spectral norm.

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