

# Some properties of equiradial and equimodular sets

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## Abstract

Our goal is to describe some properties of matrices belonging either to the set of matrices equiradial with a matrix  $A$ , or to the set of matrices equimodular with  $A$ . The first set is specified by the standard Gerschgorin-type information about  $A$ , i.e. by the vector

$$I_{tG}^r(A) = (|a_{11}|, R_1(A), |a_{22}|, R_2(A), \dots, |a_{nn}|, R_n(A)),$$

where  $R_i(A)$  is the sum of moduli of the off-diagonal entries in the  $i$ 'th row, and the second set is distinguished by the spreaded Gerschgorin-type information about  $A$ , i.e. by the vector

$$I_{tG}^m(A) = (|a_{11}|, |a_{12}|, \dots, |a_{1n}|, |a_{21}|, |a_{22}|, \dots, |a_{2n}|, \dots, |a_{n1}|, |a_{n2}|, \dots, |a_{nn}|).$$

## References

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