

**Combined matrix of diagonally dominant matrices****Authors:**

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**Abstract:** Let  $A$  be an  $n \times n$  diagonally matrix. In this talk, properties of nonsingular matrices that are doubly diagonally dominant are considered [4]. In addition, other kinds of diagonally dominance as strictict or equipotent are revised [1]. Finally, properties of the combined matrix of  $A$ , [2, 3], in function of the dominance character of  $A$  are studied, in particular, when the dominance is strictly and when the matrix  $A$  is irreducible and equipotent.

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