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THE POSSIBLE NUMBERS OF ZEROS IN AN ORTHOGONAL MATRIX*

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Abstract. It is shown that for $n \geq 2$ there is an $n \times n$ indecomposable orthogonal matrix with exactly k entries equal to zero if and only if $0 \leq k \leq (n-2)^2$.

Key words. orthogonal matrix, indecomposable matrix, zero-nonzero pattern

AMS subject classifications. 15A57, 05C50

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