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Extremal functions of excluded block permutation matrices.

For a 0-1 matrix P , $ex(n, P)$ is the maximum number of ones in an $n \times n$ matrix that cannot be reduced to P by deleting some rows and columns and changing some 1s to 0s. We show that if P is a permutation matrix and Q is arbitrary, then the order of growth of $ex(n, P \otimes Q)$ is the same as that of $ex(n, Q)$ (up to, in some cases, a factor of n^ϵ), extending a result used in the proof of the Stanley-Wilf conjecture. (Received September 20, 2009)