

A lower bound on permutation codes of distance $n - 1$

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A construction for mutually orthogonal latin squares (MOLS) inspired by pairwise balanced designs is shown to hold more generally for a class of permutation codes of length n and minimum distance $n - 1$. Using ingredients when n equals a prime or a prime plus one, and applying a number sieve, we obtain a general lower bound $M(n, n - 1) \geq n^{1.0797}$ on the size of such codes for large n . This represents a small improvement on the guarantee given from MOLS.