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On multifold MDS and perfect codes that are not splittable into onefold codes. (English. Russian original) [Zbl 1083.94022](#)

Probl. Inf. Transm. 40, No. 1, 5-12 (2004); translation from *Probl. Peredachi Inf.* 40, No. 1, 6-14 (2004).

Summary: The union of ℓ disjoint MDS (or perfect) codes with distance 2 (respectively, 3) is always an ℓ -fold MDS (perfect) code. The converse is shown to be incorrect. Moreover, if k is a multiple of 4 and $n + 1 \geq 16$ is a power of two, then a $k/2$ -fold k -ary MDS code of length $m \geq 3$ and an $(n + 1)/8$ -fold perfect code of length n exist from which no MDS (perfect) code can be isolated.

MSC:

[94B65](#) Bounds on codes

[94B99](#) Theory of error-correcting codes and error-detecting codes

[05B15](#) Orthogonal arrays, Latin squares, Room squares

Cited in **6** Documents

Keywords:

maximal distance separable codes; k -ary code; Latin n -cube; n -quasi group

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