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## DIVISIBLE MRD CODES

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Harold N. Ward has introduced and studied the concept of divisible codes in which Hamming metric is considered. In this paper we define divisibility of MRD codes in terms of rank norm of each code word. This study lead to the characterization of all non-divisible MRD codes. Let  $C = C[n, k, d]$  be a linear RD code over  $GF(q^N)$ ,  $n \leq N$ ,  $N > 1$ , with length  $n$  and dimension  $k$  and minimum distance  $d$ . If there exists an integer  $m > 1$  such that  $m \mid r(c, q)$  for all  $0 \neq c \in C$  then we say  $C$  is divisible. We prove  $[n, 1, n]$  MRD codes for all positive integers  $n$  is divisible. All  $[n, k, d]$  MRD codes with  $d < n$  (i.e. with  $k \geq 2$ ) are non-divisible.

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