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*Covering Arrays for Some Equivalence Classes of Words*

We study two variations of the covering array scheme in which all words are not considered to be different. In the first, partitioning hash families, words are equivalent if they induce the same partition of a  $t$  element set. In the second, words of the same weight are equivalent. In both we produce logarithmic upper bounds on the minimum size  $k = k(n)$  of a covering array. Definitive results for  $t = 2, 3, 4$ , as well as general results, are provided.