YMC2004 TALK ABSTRACT

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Title: Two size PBD\’s with a Maximum Number of Triples

Description:
The covering problem gives a solution of construction a PBD(v, {3, 2}, 1 } with a maximum number of triples. In this note, we will find the necessary and sufficient conditions to construct a PBD(v, {3, k}, 1) with k = 4 or 5 having a maximum number of triples. Note that the case for v  5 mod 6 and k = 5 is already known. It is known that the minimum number of blocks of size k where v  1, 3 mod 6 is 0, but we will also investigate the possibility of designs of this nature with the nonzero but minimum number of blocks of size k.