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Association schemes from McFarland Difference Sets

Association schemes can be built by partitioning a group into disjoint subsets all of which are either difference sets or subgroups as long as each difference set is either reversible or the set of inverses for another of the difference sets in the partition. We exhibit partitions for three groups of order 96 into five subsets: four of the subsets are McFarland difference sets and the fifth is a subgroup of order sixteen. The corresponding 5-class association schemes are non-symmetric and imprimitive.