

Direct product constructions for resolvable group divisible designs

Rolf Rees
Memorial University

We discuss a relatively new technique for constructing resolvable group divisible designs, which involves a direct product together with a novel way of putting together parallel classes. We will indicate some applications, which include a short proof of the existence of URDs with block size 2 and 3, the construction of maximal sets of triangle-factors in complete graphs and the development of a new lower bound on the number of mutually orthogonal idempotent latin squares of order n .