

1067-05-1503

J Kyle Pula* (jpula@math.du.edu) and **Ian Wanless**. *Weak Transversals of Latin Squares*.

A latin square of order n is an $n \times n$ array with entries from an n -set of symbols such that no row or column contains a repeated symbol. Structures of this type occur in many forms throughout both pure and applied mathematics as, for example, Cayley tables of finite groups, subsets of lines in affine planes, and efficient statistical designs. A weak transversal of a latin square is a collection n cells that meets each row and column once and no symbol more than twice. We discuss a conjecture that every latin square can be partitioned into weak transversals and present some initial results in this direction. (Received September 21, 2010)