

School of Mathematics and Physics Women in Mathematics Day

Fuch's problem on Latin Squares and cubes by Tara Kemp

Abstract:

A latin square of order n is a square array in which each of n symbols occurs exactly once in every row and column, similar to a Sudoku puzzle. L. Fuchs posed a question about the existence of quasigroups with disjoint subquasigroups and this problem is equivalent to the existence of latin squares with disjoint subsquares. The existence of these latin squares is a partially solved problem and it can be extended to a problem on latin cubes with disjoint subcubes. In this talk, I will discuss the known results for the problem on latin squares and the work that has been done on the latin cube analogue.