Magic Sudoku Pair Latin Squares

Braxton Carrigan*, Southern Connecticut State University James Hammer, Cedar Crest College John Lorch, Ball State University Caitlin Owens, Desales University

An (a, b)-Magic Sudoku pair latin square (MSPLS(a, b)) is an (a, b)-Sudoku pair latin square such that ever (a, b) rectangle and every (b, a) rectangular region in the natural tiling is a magic rectangle. In this talk we will provide combinatorial results for the restrictions on (a, b) for a MSPLS(a, b) while also providing an infinite family of pairs (a, b) for which an MSPLS(a, b) exists.

Keywords: Magic Rectangles, Sudoku pair latin squares