Sudoku Pair Latin Squares

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A (a, b)-Sudoku pair latin square is a latin square that is simultaneously a (a, b)-Sudoku latin square and a (b, a)-Sudoku latin square. This presentation provides constructions for many arbitrary classes of positive integer pairs. Specifically we complete the construction of a (3, b)-Sudoku pair latin square for any positive integer b. Moreover, this implies that there exist factor pair latin squares of order 3p for any prime p, answering a question posed by Hammer and Hoffman.

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