A Generalization of Franklin's Magic Squares

John Lorch, Ball State University

For prime p we define magic squares of order kp^3 , called type-p Franklin squares, whose properties specialize to those of classical Franklin squares in the case p = 2. We construct such squares in prime power orders. These results are motivated by a relationship between classical most-perfect magic squares of triply even order and pandiagonal classical Franklin squares.

Keywords: Franklin magic square, most-perfect magic square