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Sets of mutually orthogoval projective and affine planes

A pair of planes, both projective or both affine, of the same order and on the same pointset are orthogoval if each line of one plane intersects each line of the other plane in at most two points. In this paper we prove new constructions for sets of mutually orthogoval planes, both projective and affine, and review known results that are equivalent to sets of more than two mutually orthogoval planes. We also discuss the connection between sets of mutually orthogoval planes and covering arrays. This is joint work with Charles J. Colbourn, Jonathan Jedwab, Mark Saaltink, Ken W. Smith, and Brett Stevens.