

Balancedly Splittable Orthogonal Designs

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A Hadamard matrix is a square $(-1, 1)$ -matrix whose rows are pairwise orthogonal. Kharaghani and Suda (2012) termed such a matrix balancedly splittable if upon forming a submatrix from a subset of its rows, the columns of the new matrix form a set of vectors which are at most biangular. This idea is extended to apply to orthogonal designs among other generalizations of Hadamard matrices. Time permitting, we will explore connections to related objects. This is a joint work with Hadi Kharaghani and Sho Suda.