

ON DIFFERENCE SCHEMES AND
ORTHOGONAL ARRAYS OF STRENGTH t

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ABSTRACT

Difference schemes (Bose and Bush (1952)) form a useful tool for the construction of orthogonal arrays of strength 2. We study a generalization of these schemes, difference schemes of strength t , which are useful for the construction and representation of orthogonal arrays of strength t . We study the existence of difference schemes of strength t , methods for their construction, and methods to construct orthogonal arrays of strength t from these schemes.