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GROUP DIVISIBLE DESIGNS THROUGH RECODING OF VARIETAL AND LEVEL CODES

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ABSTRACT

Varietal trials and factorial experiments are two main types of experiments which required statistical designs. The required designs for these two types of experiments are different and hence are obtained using different methodologies. Various incomplete block designs can be obtained using these two techniques. In this investigation we have proposed the methods for constructing the singular and semi regular group divisible designs through the recoding of varietal and level codes. Further one method is also developed for the construction of semi regular group divisible designs using Kronecker product of balanced incomplete block designs. The methods are supported with the construction of suitable examples.

KEYWORDS: Kronecker Products, Varietal Codes, Level Codes, Confounded Interactions and Factorial Experiments