

## **A STUDY OF G-OPTIMAL FRACTIONAL FACTORIAL DESIGNS IN PHARMACOLOGICAL RESEARCHES**

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### **ABSTRACT**

Optimal designs are specified with the goal of obtaining efficient parameter estimates and maximum power of statistical tests while minimizing cost and effort. Many challenges and complexities arise when trying to understand a system with multiple medical treatments because the underlying biological system is intrinsically complex and there are potential multiple interaction. In such cases, efficient fractional factorial designs are useful to study complexity. In the present investigation, G-optimal fractional factorial designs are studied and showed its applicability to study multiple medical treatments interactions

**KEYWORDS:** Optimal Designs, Fractional Factorial Designs, Prediction Variance, Blocked Designs, etc