

Weekly Meeting

Topic: Develop a criteria that is corresponding to property α

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Date: Jun. 26, 2024

Goal

- We want to find a metric that can measure, or quantify how close a design is to have property α , that is, stratification on $s^2 \times s^2$ grids in all 2-dims.

Moment aberration

With n runs, m factors and s levels, moment aberrations are denoted as

$M(D_{n \times m}) = (M_1, M_2, \dots, M_p)$, where

$M_k = \sum_{i=1}^{n=1} \sum_{j=i+1}^n (p - d_H(x_i, x_j))^k$, and

$d_H(x_i, x_j) = \sum_{l=1}^p 1(x_{il} \neq x_{jl})$ being Hamming distance.