



統計科學研究所

INSTITUTE OF
STATISTICAL SCIENCE



統計所學術演講



中研院統計所

學術演講

講題：Dual-Orthogonal Arrays for Order-of-Addition
Two-Level Factorial Experiments

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時間：2023年11月6日(星期一)，10:30-12:00

地點：統計所B1演講廳

Abstract

In some industrial, chemical and biopharmaceutical studies, varying component addition orders and component levels may have a significant impact on the responses. In this talk, I will introduce a new class of orthogonal arrays called dual-orthogonal arrays to design order-of-addition two-level factorial experiments in which both component addition orders and component levels can be varied over treatments. Dual-orthogonal arrays can be viewed as an optimal combination of order-of-addition orthogonal arrays and two-level orthogonal arrays. Based on these two different concepts of orthogonality, both pairwise order effects and component main effects can be estimated with optimal efficiency. A real-world example will be used to show that dual-orthogonal arrays can be practical. In addition, some construction methods will be introduced to generate dual-orthogonal arrays.

Keywords : Interchange algorithm, main-effect plan, optimal design, screening design.

※ 茶會：10:10開始

※ 實體與線上視訊同步進行。