

# Moment Aberration for Multi-Stratum Factorial Designs

Ming-Chung Chang

Institute of Statistical Science, Academia Sinica, Taiwan

## Abstract

Multi-stratum factorial designs are prevalent in industrial and agricultural applications. However, the experimental units in these designs are subject to multiple error sources, posing a challenge in designing optimal multi-stratum factorial designs. This presentation introduces a moment aberration criterion for multi-stratum factorial designs. This row-based criterion enables fast computation. Additionally, we establish that the minimum moment aberration designs are optimal under the criterion proposed by Chang and Cheng [Ann. Stat. 46 (2018) 1779-1806]