

INTRODUCTION TO GEOMETRIC THEORY OF EXPERIMENTAL DESIGNS

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- *ABSTRACT: We present some aspects of the theory of experimental design and analysis of variance, using a geometric approach in terms of vector subspaces and orthogonal projectors. It is mathematically rigorous and easy to understand. Its main properties are demonstrated using this geometric method. Because of the brevity of geometric language, key concepts as, for example, variance analysis, as described by geometrical elements. A classical example of negative estimates of variance components is treated by the method.*
- *KEYWORDS: Geometric approach; completely randomized design; vector subspace; orthogonal projector.*

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