

GEOMETRY OF BASIC PROPERTIES ON LINEAR REGRESSION AND OF THE MALLOWS'S C_p

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- **ABSTRACT:** *A fully geometric approach, employing only vectorial subspaces and orthogonal projections, is applied to the theory of linear models. Basic results, usually proved in textbooks using non trivial matricial algebra, are demonstrated using only geometry. As a rather unusual application, the method is applied to the construction of Mallows's C_p statistic.*
- **KEYWORDS:** *Geometric methods; Mallows's C_p ; linear models; orthogonal projections.*

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