POSTER

# The Types of the distributions in Bi-Additive Models

Patrícia Antunes[a], Sandra S. Ferreira[b], Dário Ferreira[c]

[a] Center of Mathematics and Applications, University of Beira Interior, Covilhã, Portugal
E-mail: antunes.patricia03@gmail.com

[b] Department of Mathematics and Applications, University of Beira Interior, Covilhã, Portugal
E-mail: sandraf@ubi.pt

[c] Department of Mathematics and Applications, University of Beira Interior, Covilhã, Portugal
E-mail: dario@ubi.pt

## Abstract

In this work, we present a compilation of well-known concepts, but which serve to support the achievement of results obtained. We consider Additive Models, to estimate the cumulants, up to the fourth order, including mixed linear models and we will start with the notion of the generating function of cumulants. We also present the relationship between moments and cumulants. Based on the Taylor expansions, we present a useful approximation of the Edgeworth expansion using the skewness and kurtosis coefficients, given by moments, where we present results in which the highest order cumulants can be expressed as polynomial functions of moments and cumulants of lower order. In the Edgeworth expansion, we present up to the fourth order.

**Keywords** Cumulants, Cumulant Generating Function, Confidence ellipsoids, Edgeworth Expansions

## References

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