

SOME APPLICATIONS AND EXTENSIONS OF THE BELL
POLYNOMIALS

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We recall the most important properties and applications of the Bell polynomials, including an application to the proof of Robert's formulas, i.e., reduction formulas for the orthogonal invariants of a strictly positive Compact Operator (shortly PCO).

Furthermore, we introduce an extension of this special class of functions. More precisely, we consider the case of multi-composite functions, and we show connections with the ordinary Bell polynomials.