Recurrence relations for the connection coefficients of orthogonal polynomials of a discrete variable

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Abstract

We give explicitly recurrence relations satisfied by the connection coefficients between two families of the classical orthogonal polynomials of a discrete variable (i. e., associated with the names of Charlier, Meixner, Krawtchouk and Hahn).
Also, a recurrence relation is given for the coefficients in the formula expressing the nth associated polynomial in terms of the original polynomials.

Keywords: Classical orthogonal polynomials of a discrete variable, associated polynomials, connection coefficients, recurrence relations.

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