Njionou Sadjang, P.; **Koepf, W.**; **Foupouagnigni, M.**
On moments of classical orthogonal polynomials. (English) Zbl 1321.33022
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The main concern of this paper is to highlight explicit representations of the moments of continuous, discrete and quantum orthogonal polynomials belonging to the Askey-Wilson scheme, via the inversion coefficients and some connection coefficients between some polynomial sets. Also, generating functions of some of these moments are established.

Many results expounded here appear in the literature, but often as isolated considerations or as part of a coherent theory by respecting the derivative operator, the divided-difference operator, the q-derivative operator, or the Askey-Wilson one.

Reviewer: Lotfi Khériji (Tunis)

MSC:

33D45 Basic orthogonal polynomials and functions (Askey-Wilson polynomials, etc.)
33C45 Orthogonal polynomials and functions of hypergeometric type
42C05 General theory of orthogonal functions and polynomials

Keywords:

inversion coefficients; canonical moments; generalized moments; orthogonal polynomials; Askey-Wilson scheme

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