

Integral and hypergeometric representations for the multiple Hahn polynomials and their descendants

We provide explicit expressions for the multiple Hahn polynomials, both of type I and type II. The expressions come in the form of integral and hypergeometric representations. The former can be obtained constructively through a discrete variant of the Mellin transform and the residue theorem. We further complete the multiple Askey scheme, allowing us to obtain integral and hypergeometric representations for the descendants of the multiple Hahn polynomials as well.