1085-33-71 **Mourad E.H. Ismail** and **Dennis Stanton*** (stanton@math.umn.edu), School of Mathematics, University of Minnesota, 206 Church St SE, Minneapolis, MN 55455. *Orthogonal basic hypergeometric Laurent polynomials.* Preliminary report.

The Askey-Wilson polynomials are orthogonal polynomials in $x = \cos\theta$, which are given as a terminating ${}_4\phi_3$ basic hypergeometric series. The non-symmetric Askey-Wilson polynomials are Laurent polynomials in $z = e^{i\theta}$, which are given as a sum of two terminating ${}_4\phi_3$'s. They satisfy a biorthogonality relation. In this paper we give new orthogonality relations for single ${}_4\phi_3$'s which are Laurent polynomials in z, which imply the non-symmetric Askey-Wilson biorthogonality. (Received August 29, 2012)