

More precise symmetric descriptions for properties of the Askey-Wilson Polynomials and their symmetric sub-families

01.05 **Howard Cohl**

(National Institute of Standards and Technology, Gaithersburg, Maryland, USA)

Time: Wednesday 24.07., 10:30 - 11:00, Room AM

Abstract: We give a more precise symmetric parametric description for various properties of the Askey-Wilson polynomials including hypergeometric and q -integral representations. This description is then applied to connection relations and to generating functions. We produce new q -integrals and basic hypergeometric transformations when applied to known generating functions for the symmetric families. This method is applied to produce generating functions and generalized generating functions in the two regimes of q and $1/q$ for $0 < |q| < 1$. This is joint work with Roberto S. Costas-Santos.