

1163-05-755

Dennis Stanton*, School of Mathematics, 206 Church St SE, University of Minnesota,
Minneapolis, MN 55455. *Combinatorics of type R_I orthogonal polynomials*. Preliminary report.

In 1995 Ismail and Masson defined a new general family of orthogonal polynomials by perturbing the 3-term recurrence relation. We give the combinatorial theory for these polynomials which corresponds to Viennot's theory. Included are path models for the polynomials and moments, continued fractions and Hankel determinants. Examples are given in the Askey scheme, including Askey-Wilson and q-Racah polynomials. This is joint work with Jang Soo Kim. (Received September 12, 2020)