

1135-05-3213 **Sylvie Corteel*** (corteel@irif.fr), IRIF, CNRS et Universite Paris Diderot, Case 7014, 75205 Paris Cedex 13, France. *Combinatorics of Koornwinder polynomials.*

In this talk, I will explain how to build Koornwinder polynomials at $q = t$ from moments of Askey-Wilson polynomials. I will use the classical combinatorial theory of Viennot for orthogonal polynomials and their moments. An extension of this theory allows to build multivariate orthogonal polynomials. The key steps for this construction are a Cauchy identity for Koornwinder polynomials due to Mimachi and a Jacobi-Trudi formula for the 9th variation of Schur functions due to Nakagawa, Noumi, Shirakawa and Yamada. This is joint work with Olya Mandelshtam, Dennis Stanton and Lauren Williams. (Received September 27, 2017)