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4000 Central Florida Blvd., P.O. Box 161364, Orlando, FL 32816-1364. Asymptotics of Integrals of
Products of Orthogonal Polynomials Arising in Combinatorics. Preliminary report.

We derive the asymptotics of several integrals involving products of orthogonal polynomials when a certain parameter tends to infinity. The orthogonal polynomials considered include the Hermite, q-Hermite, and Chebyshev polynomials and the corresponding integrals have certain combinatorial interpretations. The asymptotic results are used to compute the probability of having certain configurations when the number of components is large. (Received September 07, 2012)