On q-integrals over order polytopes

JANG SOO KIM^{*} AND DENNIS STANTON Department of Mathematics, Sungkyunkwan University, Suwon, South Korea *Email:* jangsookim@skku.edu

In this talk we express a q-integral over an order polytope coming from a poset as a sum over all linear extensions of the poset. As an application, we give a combinatorial interpretation of a q-Selberg integral, which generalizes Stanley's combinatorial interpretation of the Selberg integral. This is joint work with Dennis Stanton.