1131-05-395 **Pamela E Harris** (peh2@williams.edu), 33 Stetson Court, Williamstown, MA 01267, **Erik Insko** (einsko@fgcu.edu), 10501 FGCU Blvd South, Fort Myers, FL 33965, and **Mohamed Omar*** (omar@g.hmc.edu), 301 Platt Boulevard, Claremont, CA 91711. *The q-analog of Kostant's partition function and the highest root of the classical Lie algebras.*

Kostant's partition function counts the number of ways to represent a particular vector (weight) as a nonnegative integral sum of positive roots of a Lie algebra. For a given weight the q-analog of Kostant's partition function is a polynomial where the coefficient of q^k is the number of ways the weight can be written as a nonnegative integral sum of exactly k positive roots. In this talk we present generating functions for the q-analog of Kostant's partition function when the weight in question is the highest root of the classical Lie algebras of types B, C and D. (Received July 18, 2017)