

1106-17-1182

Wayne Johnson* (waj@uwm.edu). *A multivariate generating function for the Weyl Dimension Formula.*

We present a closed form for a multivariate generating function for the dimensions of the irreducible representations of a semisimple, simply connected linear algebraic group over \mathbb{C} whose highest weights lie in a finitely generated lattice cone in the dominant chamber. This result generalizes the formula for the Hilbert series of an equivariant embedding of a homogeneous projective variety. We use the result to compute multivariate Hilbert series for some interesting examples. (Received September 11, 2014)