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Dan Orr (dorr@vt.edu), Department of Mathematics, MC 0123, 460 McBryde Hall, Virginia Tech, 225 Stanger St., Blacksburg, VA 24061, and **Mark Shimozono*** (mshimo@vt.edu), Department of Mathematics, MC 0123, 460 McBryde Hall, Virginia Tech, 225 Stanger St., Blacksburg, VA 24061. *Quiver Kostka-Shoji polynomials.*

We study the Euler characteristics of global sections applied to the twist by certain vector bundles, of Lusztig's convolution diagram, which is itself a vector bundle on a product of partial flag varieties, one for each quiver node. The case of the cyclic quiver was studied by Finkelberg and Ionov and connects with earlier work of Shoji on Green's functions for complex reflection groups. We give a conjecture for higher vanishing for general quivers and an explicit positive formula for cyclic and single path equioriented quivers. For cyclic quivers our construction is closely related to the vertex representation of the quantum toroidal algebra. For one and two nodes the polynomials have interpretations as intersection cohomology of the nullcone and enhanced nullcone respectively. (Received January 27, 2019)