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Jennifer Beineke, Ben Brubaker and Sharon Frechette*

(sfrechet@mathcs.holycross.edu), Department of Mathematics & Computer Science, College of the Holy Cross, 1 College Street, Worcester, MA 01610. *Weyl group multiple Dirichlet series for Type C: Part II.*

We construct Weyl group multiple Dirichlet series associated to root systems of Type C , through a combinatorial recipe involving Gelfand-Tsetlin patterns. These Dirichlet series are associated with an n -fold metaplectic cover of $\mathrm{So}(2r + 1)$, and we prove functional equations for them when $n = 1$, via the Casselman-Shalika formula. We also prove that our description matches the so-called “stable case,” as described for general root systems by Brubaker, Bump and Friedberg. This is joint work with Jennifer Beineke and Ben Brubaker. (Received August 19, 2008)