

1067-22-1118 **Matthew Housley*** (housley@math.utah.edu), 155 South 1400 East Room 233, Salt Lake City, UT 84112. *Closed form multiplicity polynomials attached to hook type Springer fibers for $SL(n, \mathbb{C})$.*

We discuss a class of polynomials attached to Springer fiber components that has application to the computation of associated cycles for Harish-Chandra modules. The span of polynomials attached to components of a specified fiber gives a Weyl group representation. In type A, this is isomorphic to the Springer representation attached to the fiber and to a representation on a cell of Harish-Chandra modules. We exploit these isomorphisms to write down closed forms of polynomials for all hook type Springer fibers over $\mathfrak{sl}(n, \mathbb{C})$. These results build on work of Leticia Barchini and Roger Zierau [1].

References

- [1] L. Barchini and R. Zierau. Certain components of Springer fibers and associated cycles for discrete series representations of $SU(p, q)$. *Represent. Theory*, 12:403-434, 2008. With an appendix by Peter E. Trapa.

(Received September 19, 2010)