

# On the Weyl group representations arising from Hessenberg varieties

*Eric Sommers*

University of Massachusetts Amherst

The cohomology of a regular semisimple Hessenberg variety carries a representation of the Weyl group, defined by Tymoczko. At one extreme is the regular representation (concentrated in degree 0); at the other, the trivial  $W$ -action on the cohomology of the flag variety. This representation can be reinterpreted in terms of the geometry of nilpotent Hessenberg varieties, which we discuss in this talk. Based on joint work with Martha Precup.