

1176-05-301 **Martha Precup** and **Edward Richmond*** (edward.richmond@okstate.edu). *An equivariant basis for the cohomology of Springer fibers.*

Springer fibers are subvarieties of the flag variety that play an important role in combinatorics and geometric representation theory. In this talk, I will discuss joint work with Martha Precup where we analyze the equivariant cohomology of Springer fibers in type A. We define a basis for the equivariant cohomology of a Springer fiber, generalizing a monomial basis of the ordinary cohomology defined by De Concini and Procesi and studied by Garsia and Procesi. Our construction yields a combinatorial framework with which to study the equivariant and ordinary cohomology rings of Springer fibers. As an application, we identify an explicit collection of Schubert classes whose images in the cohomology ring of a given Springer fiber form a basis. (Received January 25, 2022)