

1129-55-423

Cristian Lenart* (clenart@albany.edu), State University of New York at Albany, **Kirill Zainoulline**, University of Ottawa, Canada, and **Changlong Zhong**, State University of New York at Albany. *Schubert calculus beyond K -theory*.

Modern Schubert calculus has been mostly studying the cohomology and K -theory (including their equivariant and quantum generalizations) of flag manifolds. The basic results for an arbitrary oriented cohomology theory have only been obtained recently; additional complexity is due to the dependence of the classes associated to Schubert varieties on their Bott-Samelson desingularizations. Our work in this area focuses on torus equivariant hyperbolic cohomology (a stalk version of elliptic cohomology). First, we generalize certain formulas for the equivariant Schubert classes in cohomology and K -theory. We also construct and study a canonical replacement of the Schubert basis (for partial flag varieties), using the Kazhdan-Lusztig basis of a certain Hecke algebra. As a byproduct, we give a new interpretation of several results in Kazhdan-Lusztig theory. (Received March 20, 2017)