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Leonardo C. Mihalcea and **Camron M. Withrow*** (cwithrow@vt.edu). *Motivic Chern classes of Bott-Samelson strata and Kazhdan-Lusztig polynomials.*

Let X be a flag manifold G/B , and consider a Schubert subvariety Ω in X , and a Bott-Samelson resolution B of Ω . We calculate the push forward of the motivic Chern class of each Bott-Samelson stratum in B , then we expand this push forward in terms of the basis of motivic Chern classes of Schubert cells in Ω . The resulting coefficients are univariate polynomials, and we identify them with polynomials previously investigated by Deodhar in terms of the Hecke algebra. Following Deodhar's work, we reinterpret our results in terms of Deodhar's combinatorial formalism and investigate the relationship between motivic Chern classes of Bott-Samelson varieties and Kazhdan-Lusztig polynomials. This is joint work with Leonardo Mihalcea. (Received September 15, 2019)