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Leonardo C Mihalcea* (lmihalce@vt.edu), Blacksburg, VA 24061. *Motivic Chern classes of Schubert cells*. Preliminary report.

The motivic Chern classes, defined by Brasselet, Schurmann, and Yokura, are functorially defined classes in the (equivariant) K theory ring of a manifold X , to which one adjoins an indeterminate y . They may be defined for any constructible subset of X . I will discuss some properties of the motivic Chern classes of Schubert cells in flag manifolds, including Poincare duality, relations to (virtual) point counting over finite fields, and conjectural positivity of the Schubert expansion and of the motivic Chern structure constants. Time permitting, I will also indicate how polynomials such as the Hall-Littlewood polynomial, appear from natural constructions utilizing motivic classes. This reports on published and ongoing work joint with P. Aluffi, D. Anderson, B. Ion, J. Schurmann and C. Su. (Received September 21, 2021)