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Double Schubert polynomials for classical groups

A classical problem in Schubert Calculus is to find polynomial representatives for (equivariant) Schubert classes in the flag manifolds. In type A, Lascoux and Schutzenberger's (double) Schubert polynomials are canonical such representatives. The situation is more subtle in the other classical types. Using Schur's P and Q functions, Billey and Haiman constructed a canonical family of polynomials, which are solutions of certain divided-difference equations. In joint work with T. Ikeda and H. Naruse we use localization techniques, and the factorial P and Q -Schur functions of Ivanov, to extend Billey and Haiman's construction to equivariant cohomology. The resulting polynomials possess quite pleasant combinatorial properties: stability, positivity, symmetry.