1120-05-58 **Laura Escobar*** (lescobar@illinois.edu), Department of Mathematics, University of Illinois at Urbana-Champaign, 1409 W. Green Street, Urbana, IL 61801, and **Karola Mészáros**. *Toric matrix Schubert varieties.*

Start with a permutation matrix π and consider all matrices that can be obtained from π by taking downward row operations and rightward column operations; the closure of this set gives the matrix Schubert variety X_π. Such a variety can be written as $X_\pi = Y_\pi \times \mathbb{C}^q$ (where q is maximal). We characterize when Y_π is toric (with respect to a $2n-1$-dimensional torus) and study the associated polytope of its projectivization. We construct regular triangulations of these polytopes which we show are geometric realizations of a family of subword complexes. Based on joint work with Karola Mészáros. (Received February 08, 2016)