Laura Escobar* (lescobar@illinois.edu), Urbana, IL 61801, and Oliver Pechenik, Bridget Eileen Tenner and Alexander Yong. Rhombic tilings and Bott-Samelson varieties.

Elnitsky gave an elegant bijection between rhombic tilings of 2n-gons and commutation classes of reduced words in the symmetric group on n letters. We explain a natural connection between Elnitsky's and Magyar's construction of the Bott-Samelson resolution of Schubert varieties. This suggests using tilings to encapsulate Bott-Samelson data and indicates a geometric perspective on Elnitsky's combinatorics. We also extend this construction by assigning desingularizations to the zonotopal tilings considered by Tenner. (Received February 24, 2017)