Jingren Chi\* (chijr@umd.edu), Department of Mathematics, 4176 Campus Dr, College Park, MD 20740. Geometry of generalized affine Springer fibers.

The generalized affine Springer fibers are certain algebraic varieties that encode orbital integrals of spherical Hecke functions. They can also be viewed as linear analogues of affine Deligne-Lusztig varieties. I will discuss some basic geometric properties of these varieties, including non-emptiness, dimension and irreducible components. (Received March 04, 2021)