1139-37-225 **W. Patrick Hooper*** (whooper@ccny.cuny.edu), City College Dept. of Mathematics, 160 Convent Ave, New York, NY 10031. *Pseudo-Anosovs and Cylinders on the Polygonal Parabola.*

I'll describe some results about the dynamics of hyperbolic affine automorphisms of a particular highly symmetric infinite area translation surface built out of polygonal parabolas. In particular, I will describe mixing-type formula and distribution results for cylinders pushed around by a hyperbolic automorphism.

I'll emphasize the main idea of the proofs of these results rather than the results themselves. First, the cylinders introduce a discretization of the space, and areas of intersecting cylinders is very much related to their intersection numbers. Second, we show that for this special surface, intersection numbers can be computed through an integral formula. Our main results follow then from understanding the asymptotics of certain integrals. (Received February 12, 2018)