1142-20-70 Ben Stucky* (bwstucky@ou.edu). Cubulating one-relator products with torsion.

In 2013, Joseph Lauer and Daniel Wise showed that a one-relator group whose defining relator has exponent at least 4 admits a proper, cocompact action on a CAT(0) cube complex, thus verifying a powerful non-positive curvature condition for these groups. To do this, they build a system of nicely-behaved codimension-1 subspaces ("walls") in the universal cover and invoke a construction due to Sageev. After introducing the necessary background material, I will describe a generalization of this result to one-relator products, namely, that a one-relator product of locally indicable groups whose defining relator has exponent at least 4 admits a geometric action on a CAT(0) cube complex if the factors do. (Received August 27, 2018)