

1059-58-23

Martin J Schmoll* (schmoll@clemson.edu), Clemson University, Martin Hall O-017, Clemson, SC 29634. *Veech groups for cyclic covers of translation surfaces.*

We talk about ongoing work on infinite genus abelian differentials, also known as translation surfaces. For surfaces with cyclic automorphism groups, like \mathbb{Z}^n , we try to describe the zero holonomy locus in a certain parameter space. The zero holonomy locus eventually contains lattice surfaces. We give a precise description for cyclic covers of the standard translation torus branched over finitely many points. In particular we calculate many Veech groups for the torus case explicitly. (Received January 26, 2010)