

1151-57-99

Chris Leininger, Yair Minsky, Juan Souto and Samuel J Taylor*

(samuel.taylor@temple.edu). *Weil-Petersson translation length and manifolds with many fibered fillings*. Preliminary report.

In joint work with Leininger, Minsky and Souto, we prove that any mapping torus of a pseudo-Anosov mapping class with bounded normalized Weil-Petersson (WP) translation length contains a finite set of ‘transverse’ and ‘level’ curves such that drilling out this set of curves results in one of a finite number of cusped hyperbolic 3-manifolds (depending only on the WP length bound). We also prove a complementary results which establishes the necessity of drilling level curves by giving new estimates for the WP translation length of compositions of pseudo-Anosov mapping classes and arbitrary powers of a Dehn twist. (Received August 11, 2019)