

1167-57-149

David Futer, Philadelphia, PA, **Emily Hamilton**, San Luis Obispo, CA , and **Neil R Hoffman*** (neil.r.hoffman@okstate.edu), 401 Mathematical Sciences Building, Oklahoma State University, Stillwater, OK 74078-0001. *Infinitely many virtual geometric triangulations.*

We prove that every cusped hyperbolic 3-manifold has a finite cover admitting infinitely many geometric ideal triangulations. Furthermore, every long Dehn filling of one cusp in this cover admits infinitely many geometric ideal triangulations. This cover is constructed in several stages, using results about separability of peripheral subgroups and their double cosets, in addition to a new conjugacy separability theorem that may be of independent interest. The infinite sequence of geometric triangulations is supported in a geometric submanifold associated to one cusp, and can be organized into an infinite trivalent tree of Pachner moves. This is joint work with Emily Hamilton and Dave Futer. (Received March 04, 2021)