

1098-57-67

Samuel J Taylor* (staylor@math.utexas.edu) and **Alexander Zupan**. *Totally geodesic subgraphs of the pants graph.*

For a compact surface S , the pants graph $P(S)$ captures the combinatorics of pants decompositions of S and has important connections to hyperbolic structures on surfaces and 3-manifolds. Motivated by the Weil-Petersson geometry of Teichmüller space, Aramayona, Parlier, and Shackleton conjecture that the full subgraph G of $P(S)$ determined by fixing a multicurve is totally geodesic in $P(S)$. We resolve this conjecture in the case that G is a product of Farey graphs. This is joint work with Alex Zupan. (Received January 08, 2014)