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)