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Yunhui Wu* (yw22@rice.edu), MS-136, P.O. Box 1892, Houston, TX 77251-1. *Iteration of mapping classes and limits of Weil-Petersson geodesics.*

Let $S = S_{g,n}$ be a surface of negative Euler-characteristic, of genus g , and with n punctures. Let $Teich(S)$ be the Teichmüller space endowed with the Weil-Petersson metric and $Mod(S)$ be the mapping class group of S . Fix $X, Y \in Teich(S)$. In this paper, we show that for any $\phi \in Mod(S)$, there exists a positive integer k depending on ϕ such that the sequence of the directions of geodesics connecting X and $\phi^{kn} \circ Y$ is convergent in the visual sphere of X . Moreover we will give a geometric description for the geodesic whose direction is the limit. (Received August 18, 2012)