999-20-117 **Ilya Kapovich*** (`kapovich@math.uiuc.edu`), UIUC Department of Mathematics, 1409 West Green Street, Urbana, IL 61821, and **Gilbert Levitt**, **Paul Schupp** and **Vladimir Shpilrain**. *Translation equivalence in free groups.*

Motivated by the work of Leininger on hyperbolic equivalence of homotopy classes of closed curves on surfaces, we investigate a similar phenomenon for free groups. Namely, we study the situation when two conjugacy classes c, c' in a free group F have the property that for every free isometric action of F on an $\mathbf{R}$-tree X the translation lengths of c and c' on X are equal. (Received August 17, 2004)