1018-37-183Kariane Calta* (kcalta@math.cornell.edu), Dept. of Mathematics, Malott Hall, Cornell
University, Ithaca, NY 14850. Unipotent flows on moduli space in genus two.

We present a classification of U-invariant, ergodic probability measures on certain submanifolds in the stratum H(1, 1) of the genus two moduli space of abelian differentials. Here, U denotes the unipotent, upper-triangular subgroup of SL(2, R)and H(1, 1) consists of pairs (M, ω) where M is a Riemann surface and ω is an abelian differential on M having exactly two simple singularities. This is joint work with Kevin Wortman, Yale University. (Received March 06, 2006)