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**Morgan Weiler\*** ([morgan.w@berkeley.edu](mailto:morgan.w@berkeley.edu)), Dept. of Mathematics, University of California, Berkeley, 970 Evans Hall #3840, Berkeley, CA 94720-3840. *Mean action of area-preserving diffeomorphisms of the annulus*. Preliminary report.

Given an area-preserving diffeomorphism  $\psi$  of a closed annulus which is a rotation near the boundary, we can define an “action function” from the annulus to the reals which captures the dynamics of  $\psi$ . We study this action function via a filtration on embedded contact homology introduced by Hutchings, which is applied after realizing  $\psi$  as the Poincaré return map of a global surface of section for the Reeb flow on a contact three-manifold. (Received September 22, 2017)