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Benjamin Dozier* (bdozier@stanford.edu), Stanford University Department of Mathematics, Building 380, Stanford, CA 94305. *Counting saddle connections whose holonomies lie in a strip*. Preliminary report.

Given a translation surface, the problem of counting saddle connections with certain properties leads naturally to questions about dynamics on the moduli space of translation surfaces. Many interesting results have been proved about the number of saddle connections of length at most R ; this turns out to be intimately connected to the Teichmüller geodesic flow. I will consider the problem of counting saddle connections whose holonomy vectors in \mathbb{R}^2 lie in a rectangle, centered at the origin, with fixed height and growing width. I will prove a lower bound for this count that is linear in the width of the rectangle. This involves studying non-divergence properties of the horocycle flow on the space of translation surfaces. (Received February 16, 2016)