1138-37-224        **Benjamin Dozier\*** (`benjamin.dozier@gmail.com`), Stanford University. *Translation surfaces with multiple short saddle connections.* Preliminary report.

I will discuss work in progress towards proving a natural conjecture on the volume of the subset of an affine invariant submanifold (of the moduli space of translation surfaces) where the translation surface has multiple independent short saddle connections. A key tool is the new compactification of the space of translation surfaces due to Bainbridge-Chen-Gendron-Grushevsky-Moeller, which can be used to explicitly understand how a translation surface can degenerate. The techniques are expected to be useful for other problems concerning affine invariant manifolds. (Received February 09, 2018)