1156-05-121 **Anthony Weaver*** (anthony.weaver@bcc.cuny.edu). *Topological conjugacy of group actions on surfaces via the (not-) Burnside lemma.* Preliminary report.

Sorting finite group actions on compact surfaces of fixed genus into topological equivalence classes gives a stratification of the moduli space. We show how to accomplish the task for fully ramified actions of the rank 2 elementary abelian p-group, p an odd prime, in arbitrary genus. Actions are represented as zero-sum sets of column vectors from the 2-dimensional vector space $V_2(F_p)$ over the field F_p with p elements. Topological equivalence classes are the $GL_2(F_p)$-orbits on this collection of column sets. The action is by column-wise left multiplication, and is not faithful, since column sets which are merely reordered are the same. We use the lemma that is (not) Burnside's, and several delicate results of elementary number theory. This is work in progress. (Received January 17, 2020)