## 1138-55-374 Jesse T. Prince-Lubawy\* (jprincelubawy@una.edu). The geometric visualization of cyclic group actions on handlebodies of genus g. Preliminary report.

There has been extensive work building the foundation that allows us to study handlebody orbifolds O using the associated graph of groups  $(\Gamma, \mathbf{G})$  along with finite injective epimorphisms  $\lambda : \pi_1^{orb}(O) \longrightarrow \mathbf{G}$ . This has allowed for an algebraic enumeration when  $\mathbf{G} = \mathbb{Z}_p$  and when  $\mathbf{G} = \mathbb{Z}_{p^2}$ . We will discuss methods using GAP that will allow us to begin the process of visualizing  $\mathbb{Z}_n$ -actions for the handlebody  $V_2$  of genus g = 2. (Received February 13, 2018)