1137-14-26 **Sean A Broughton*** (brought@rose-hulman.edu). *Topological and $\mathcal{H}_q$ Equivalence of Prime Cyclic p-gonal Actions on Riemann Surfaces.* Preliminary report.

Two Riemann surfaces S_1 and S_2 with conformal G-actions have topologically equivalent actions if there is a homeomorphism $h : S_1 \to S_2$ which intertwines the actions. A weaker equivalence may be defined by comparing the representations of G on the spaces of holomorphic q-differentials $\mathcal{H}^q(S_1)$ and $\mathcal{H}^q(S_2)$. We present the differences between topological equivalence and $\mathcal{H}^q$ equivalence of prime cyclic actions, where S_1/G and S_2/G have genus zero. (Received January 10, 2018)