1145-57-1940 **Kirk McDermott*** (kirk.mcdermott@sru.edu). *On the topology of groups of type $\mathcal{Z}$.*
For each group G of type $\mathcal{Z}$ there exists a spherical picture $\mathbb{P}$ over its cyclic presentation $\mathcal{P}$, and under certain conditions $\mathbb{P}$ gives rise to a Heegaard diagram for a 3-manifold M inducing $\mathcal{P}$. The groups of type $\mathcal{Z}$ arise as finite index subgroups of certain centrally extended triangle groups, the so-called shift extension of G. Having solved for example the finiteness and fixed point problems for groups of type $\mathcal{Z}$, it is possible to obtain a variety of topological conclusions. For instance, it follows immediately that the manifolds under consideration are all Seifert fibered. Examples are highlighted when a group of type $\mathcal{Z}$ demonstrates interesting shift dynamics (e.g. commensurability, fixed points). The topological interest lies in the fact that each manifold M can be described as a cyclic branched covering of a lens space, where the shift behaves as a periodic covering transformation. The 3-manifolds break down into two subfamilies, one of which includes and extends earlier results of Cavicchioli, Repovs, and Spaggiari. (Received September 24, 2018)