1171-16-22 **Jacob Barahona Kamsvaag** and **Jason Gaddis*** (gaddisj@miamioh.edu). *Dihedral actions on type A preprojective algebras.*

Given an algebra R and G a finite subgroup of automorphisms of R, there is a natural map $\eta_{R,G} : R\#G \to \mathrm{End}_{R^G} R$, called the Auslander map. A theorem of Auslander shows that $\eta_{R,G}$ is an isomorphism when $R = \mathbb{C}[V]$ and G is a finite group acting linearly and without reflections on the finite-dimensional vector space V. This result has important implications in the study of the Mckay correspondence.

The work of Mori and Bao-He-Zhang has encouraged study of this theorem in the context of Artin-Schelter regular algebras. In this talk, I will discuss Auslander's theorem in the setting of non-connected graded Calabi-Yau algebras. In particular, when R is a preprojective algebras of type A and G is a finite subgroup of D_n acting on R by automorphism, we show that $\eta_{R,G}$ is an isomorphism if and only if G does not contain all of the reflections through a vertex. This is joint work with Jacob Barahona Kamsvaag. (Received August 02, 2021)