

# GIT-Equivalence and Semi-Stable Subcategories of Quiver Representations

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## ABSTRACT

The main investigation in this thesis is to determine when two weights give rise to the same semi-stable subcategory in the case of representations of quivers. This question was answered via explicit construction for tame path algebras by Ingalls, Paquette and Thomas in their 2013 paper “Semi-stable subcategories for Euclidean Quivers.” It is answered here in greater generality using methods and ideas from invariant theory. Lastly, it is verified that the explicit construction given in the above referenced paper agrees with the general result given here in the case that the quiver in question is tame.