SHIPING LIU, Université de Sherbrooke

Representations of hereditary artin algebras of Dynkin type

Let H be a hereditary artin algebra of finite representation type. We shall study the category mod H of finitely generated left H-modules with a connection to the bounded derived category $D^b(\text{mod}H)$ and the associated cluster category C_H . By determining all its hammocks, we provide an effective method to construct the Auslander-Reiten quiver of mod H by simply viewing the ext-quiver of H. As easy applications, we compute the numbers of non-isomorphic indecomposable objects in mod H and C_H , and also the nilpotency of the radicals of mod H, $D^b(\text{mod}H)$ and C_H .