
HELENE TYLER, Manhattan College

String algebras with one cycle - the rhombic picture

This is a report on ongoing joint work with Markus Schmidmeier. In previous work, we studied the Gabriel-Roiter measure of a module over a tame hereditary algebra of type \tilde{A}_n . Through the development of the Greedy Algorithm, we obtained an explicit description of the rhombic picture of the algebra and saw how features of the Gabriel-Roiter measure of a module identify its position in the Auslander-Reiten quiver. Now we consider modules over a string algebra with a single cycle. In this new setting, the Greedy Algorithm still enables us to compute the Gabriel-Roiter measure. However, since the algebras may no longer be hereditary, we begin to see a new relationship between the rhombic picture and the Auslander-Reiten quiver.