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Cluster-tilted algebras without clusters. Preliminary report.

Cluster-tilted algebras are by definition endomorphism algebras of cluster-tilting objects in the cluster category. The module category of a cluster-tilted algebra is known to be equivalent to the quotient of the cluster category by the (additive hull) of the cluster-tilting object.

In this talk, we will describe a different approach to cluster-tilted algebras that does not involve the cluster category. We will define cluster-tilted algebras as certain trivial extensions of tilted algebras, and present an algorithm that in finite type computes the Auslander-Reiten quiver of the cluster-tilted algebra from the Auslander-Reiten quiver of the tilted algebra. (Received September 11, 2009)