
IBRAHIM ASSEM, Université de Sherbrooke

Cluster Automorphisms

We define a notion of cluster automorphism of a cluster algebra. We show that, in the acyclic case, the computation of the group of cluster automorphisms reduces to the computation of the automorphism group of the transjective component of the Auslander–Reiten quiver of the cluster category. As a result, we obtain these groups for the Dynkin and the euclidean types. We then consider the case of the cluster algebras arising from surfaces and relate the group of cluster automorphisms with the mapping class group of the surface.

This is a report on a joint work with Ralf Schiffler and Vasilisa Shramchenko.