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**Title:** Kac-Moody groups, generalized minors, and quiver representations

**Abstract:**

Both the representation theories of Kac-Moody groups and quivers, in the non-finite types, present a tripartite structure.

Representations of a Kac-Moody group  $G$  comes naturally in three classes (positive, zero, and negative level representations) according to the scalar by which the center of  $G$  acts.

Indecomposable representation of a quiver  $Q$  are either preprojective, postinjective, or regular depending on where they sit in the associated Auslander-Reiten quiver.

We connect these two tripartities using cluster algebras. By identifying the ring of coordinates of an appropriate double Bruhat cell of  $G$  as a cluster algebra we show how cluster variables coming from preprojective (resp. postinjective and regular) representations of  $Q$  can be interpreted as generalized minors of  $G$  arising from positive level (resp. negative level and 0 level) representations.

No prior knowledge of cluster algebras will be assumed and only simple notions of representation theory will be used.