

Description of current research interests connected to cluster algebras

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I am currently interested in quantum cluster algebras and their connections with quantum groups.

In a joint work with Christof Geiss and Jan Schröer [GLS], we have shown that many quantum coordinate rings occurring in Lie theory have a quantum cluster algebra structure.

Recently, in a joint work in progress with David Hernandez, we have shown that the t -deformed Grothendieck rings of certain tensor categories of representations of quantum loop algebras of type A, D, E , have a quantum cluster algebra structure.

References

[GLS] C. GEISS, B. LECLERC, J. SCHRÖER, *Cluster structures on quantum coordinate rings*, arXiv:1104.0531.