

1162-16-111

**Bach Nguyen, Kurt Trey Trampel\*** (ktrampel@nd.edu) and **Milen Yakimov**. *Quantum cluster algebras at roots of unity*.

Quantum cluster algebras at roots of unity are introduced, and standard cluster theory results such as the quantum Laurent phenomenon are obtained. Examples of these algebras include quantum cluster algebras specialized to a root of unity. For roots of unity with nice compatibility, we present a canonical central subalgebra. We also present a general theorem on the structure of discriminants of these quantum algebras. These discriminants encode representation theoretic information about these algebras. The discriminants of quantum Schubert cells for any symmetrizable Kac-Moody algebra are found as an example of the general theorem. (Received August 28, 2020)