Frobenii on Morava E-theoretical quantum groups

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Host: Tamas Hausel

This talk is based on joint work with Yaping Yang. We study a family of quantum groups constructed using Morava E-theory of Nakajima quiver varieties. We define the quantum Frobenius homomorphisms among these quantum groups. This is a geometric generalization of Lusztig's quantum Frobenius from the quantum groups at a root of unity to the enveloping algebras. The main ingredient in constructing these Frobenii is the transchromatic character map of Hopkins, Kuhn, Ravenal, and Stapleton. In the talk we explain the construction of the Frobenius homomorphism, as well as an application - a Steinberg type tensor product formula for representations of the quantum groups.

Thursday, November 18, 2021 10:00am - 12:00pm

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