

Pavel Safronov

Quantum character varieties at roots of unity

Character varieties of closed surfaces have a natural Poisson structure whose quantization may be constructed in terms of the corresponding quantum group. When the quantum parameter is a root of unity, this quantization carries a central subalgebra isomorphic to the algebra of functions on the classical character variety. In this talk I will describe a procedure which allows one to obtain Azumaya algebras via quantum Hamiltonian reduction. As an application, I will show that quantizations of character varieties at roots of unity are Azumaya over the corresponding classical character varieties.

This is a report on joint work with Jordan Ganev and David Jordan.