ALGEBRA SEMINAR

Kirillov's Family Algebras and the Cayley-Hamilton identity

Matthew Tai University of Pennsylvania

ABSTRACT: For a Lie algebra \mathfrak{g} , elements of Kirillov's quantum family algebras for \mathfrak{g} are matrices over the universal enveloping algebra $U(\mathfrak{g})$ which is generally noncommutative. These elements still obey a version of the Cayley-Hamilton identity, giving variations on the trace and the determinant. I will talk about the cases that have been explored and relations to other objects, in particular classical family algebras.

Monday, October 6, 2014 1:30 – 2:30 pm Room 617, Wachman Hall Department of Mathematics