SEMINAR

MIAMI UNIVERSITY
Department of Mathematics

presents

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On Actions of Drinfel'd doubles of finite dimensional algebras

In 2001, Susan Montgomery and Hans-Jürgen Schneider classified all non-trivial $T_n(q)$-module algebra structures on an n-dimensional associative algebra A where $T_n(q)$ is a Taft (Hopf) algebra of dimension n^2 for $n > 2$. They further showed that each such module structure extends uniquely to make A a module algebra over the Drinfel'd double of $T_n(q)$. We explore what it is about the Taft algebras that leads to this uniqueness, by examining actions of (the Drinfel'd double of) Hopf algebras H ``close" to the Taft algebras on finite-dimensional algebras analogous to A above. Such Hopf algebras H include the Sweedler (Hopf) algebra of dimension 4, bosonizations of quantum linear spaces, and the Frobenius-Lusztig kernel $u_q(sl_2)$.

Tuesday — 120 Bachelor
March 13, 2018 — 1:30-2:30 p.m.