

Mathematics Colloquium

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**Frobenius Twisted
Conjugacy Classes and
Representation Theory
of Weighted Quivers**

Abstract: The first motivation to the question comes from classifying the restricted structures on a given finite dimensional Lie algebras over a field of positive characteristic. The question is equivalent to classifying orbits of an algebraic group action on a certain algebraic variety via a Frobenius twisted conjugation. In the case of abelian Lie algebras, we have a complete classification of all the orbits. This work also relates to the theory of representations of weighted quivers by classifying all representations. One key ingredient is Lang's theorem for algebraic groups characteristic p case for Frobenius morphisms. Other related questions arise in studying the orbit structures on spherical varieties of a reductive algebraic group.

Thursday, April 16

4:00-5:00 pm

204 Smith Hall

Please note special day