

# ALGEBRA SEMINAR

## *Quantum symmetry for quantum projective spaces*

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ABSTRACT: AS-regular algebras are non-commutative analogues of smooth projective schemes, with those of global dimension four behaving in many ways like three-dimensional projective space. In this talk I will introduce a specific family of such algebras and study the phenomenon whereby a quantum group acts on each algebra in the family.

The quantum group action gives rise to autoequivalences of the category of (graded) modules that do not come from genuine algebra automorphisms. This then helps in classifying certain well-behaved modules that play the role of lines inside the quantum projective space.

MONDAY, OCTOBER 26, 2015

1:30 – 2:30 PM

ROOM 617, WACHMAN HALL  
DEPARTMENT OF MATHEMATICS