

# Geometry and Representation Theory — Seminar —

## REPRESENTATION THEORY OF SYMPLECTIC SINGULARITIES

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### Abstract

There are a lot of non-commutative algebras out there in the world, so if you want to study some of them, you have to have a theory about which are especially important. One class I find particularly interesting are non-commutative algebras which “almost” commutative and thus can be studied with algebraic geometry, giving a rough dictionary between certain non-commutative algebras and certain interesting spaces. This leads us to a new perspective on some well-known algebras, like universal enveloping algebras, and also to new ones we hadn’t previously considered. The representations of the resulting algebras have a lot of interesting structure, and have applications both in combinatorics and in the construction of knot invariants.

Monday, 1 October 2018  
16:30–17:30  
319 Jeffery Hall