

Queen's Algebraic Geometry — Seminar —

ARC SPACES AND EQUIVARIANT COHOMOLOGY

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Abstract

Let G be an algebraic group acting on a smooth complex variety X . I will describe a new perspective on the G -equivariant cohomology of X , which replaces the action of G on X with the induced action of the respective arc spaces. Under certain hypotheses, these infinite-dimensional varieties allow us to obtain a geometric \mathbb{Z} -basis for equivariant cohomology, as well as geometric representatives for cup products as intersections. As an explicit example, I'll discuss GL_n acting on the space of matrices.

Monday, October 26, 2009
4:30pm – 5:30pm
319 Jeffery Hall