Queen's Algebraic Geometry
— Seminar —

Hamiltonian Torus Actions on Orbifolds

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Abstract

When a symplectic manifold M carries a Hamiltonian torus R action, the injectivity theorem states that the R-equivariant cohomology of M is a subring of the one of the fixed points and the GKM theorem allows us to compute this subring by only using the data of 1-dimensional orbits. The results in the first part of this talk are a generalization of this technique to Hamiltonian R actions on orbifolds and an application to the computation of the equivariant cohomology of compact toric orbifolds. In the second part, we will introduce the equivariant Chen-Ruan cohomology ring which is a symplectic invariant of the action on the orbifold and explain the injectivity/GKM theorem for this ring.

Monday 7 February 2011
16:30 – 17:30
319 Jeffery Hall