

BOSTON UNIVERSITY GEOMETRY SEMINAR

Hamiltonian torus actions on orbifolds

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Wed., Dec. 8, 3-4 pm in PSY B53
Tea 2:45-3 pm in MCS 153

Abstract:

When a symplectic manifold M carries a Hamiltonian torus T action, the injectivity theorem states that the T -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 T 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.