Orbifold cohomology of abelian symplectic reductions

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Abstract

I will talk about the topology of symplectic (and other) quotients. I will briefly review Kirwan's techniques for proving that the restriction map from the equivariant cohomology of the originial space to the ordinary cohomology of the symplectic reduction is a surjection. I will show how this result can be used to understand various aspects of the topology of quotients, focusing on the theme of orbifolds and computing the Chen-Ruan orbifold cohomology ring of abelian symplectic reductions.