

Equivariant cohomology of torus orbifolds

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A torus orbifold is a $2n$ -dimensional closed orbifold with the half dimensional torus action with non-empty fixed points. This space is introduced by Hattori and Masuda [8] as a topological generalization of toric orbifolds. For example, a weighted projective space is one of the typical examples of torus orbifolds, and its equivariant cohomology over integer coefficient is computed in [1]. In [2], the equivariant cohomology of toric orbifolds is computed by the piecewise polynomials of fan. In this talk we generalize their result to a certain class of torus orbifolds by using the GKM method introduced in [6, 7, 10, 11].

This is the joint work with Alastair Darby and Jongbaek Song [3, 4].

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