

# EQUIVARIANT COHOMOLOGY FOR TORUS ACTION

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In this talk, I will describe the equivariant cohomology for some special space with  $T^n$  torus action that has finitely many fixed points and 1-dimensional orbits. Equivariant cohomology is a functor from category of topological spaces and equivariant continuous maps to the category of graded rings and their homomorphisms and this functor reflects both the topology of the space and the action of the group. In favorable situations under the torus action equivariant cohomology has combinatoric picture. That is, for certain spaces we can describe equivariant cohomology in a combinatorial way. Therefore we need not to use chain complexes that are used in ordinary cohomology anymore. Instead of chain complexes we use fixed points and 1-dimensional orbits to construct a graph, called the moment graph, and use this graph to compute the equivariant cohomology ring.

## References

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