

Hamiltonian circle actions on compact 4-dimensional symplectic orbifolds: classification and invariants

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A central problem in Hamiltonian geometry is to classify effective Hamiltonian torus actions on compact symplectic spaces up to a suitable notion of isomorphism. In this talk, we will report on recent progress on the classification of Hamiltonian circle actions on compact, 4-dimensional symplectic orbifolds with isolated and cyclic orbifold points. Time permitting, we will illustrate ongoing efforts to calculate the equivariant cohomology of such spaces. This is joint work with Leonor Godinho (IST, Lisbon), Grace Mwakyoma-Oliveira, and Tara Holm (Cornell).

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