

1031-58-92

Alvaro Pelayo* (apelayo@math.mit.edu), Massachusetts Institute of Technology, Department of Mathematics, 77 Massachusetts Avenue, Cambridge, MA 02139-4307. *Symplectic actions of two-tori on four-manifolds.*

I will present a classification of symplectic actions of two-tori on compact, connected symplectic four-manifolds, up to equivariant symplectomorphisms. The classification is in terms of a collection of invariants of the topology of the manifold, of the torus action and of the symplectic form. I will present explicit models of such symplectic manifolds with torus actions, defined in terms of these invariants. A stepping stone for this classification is the previous classification of symplectic torus actions with coisotropic principal orbits due to J.J. Duistermaat and the presenter. (Received August 05, 2007)