

1129-53-407

**Tara S Holm\*** ([tsh@math.cornell.edu](mailto:tsh@math.cornell.edu)), Cornell University, Department of Mathematics, Ithaca, NY 14853-4201, and **Liat Kessler**. *The Topology of Symplectic Manifolds*. Preliminary report.

In symplectic geometry, a Hamiltonian group action gives rise to the momentum map, a key tool in studying topological invariants of symplectic manifolds. On the other hand, pseudoholomorphic curves provide strong analytic tools to study symplectic invariants of these spaces. A fundamental problem in symplectic geometry is to relate the geometry and topology of a Hamiltonian group action to the discrete geometry of the momentum polytope. I will give an overview of these ideas, and explain some of my recent work with Liat Kessler. (Received March 20, 2017)