

1123-53-302

Yi Lin* (yilin@georgiasouthern.edu), 65 Georgia Ave. Room 2306, Statesboro, 30458.

Convexity properties of Hamiltonian transversely symplectic manifolds.

In this talk, we introduce the notion of a Hamiltonian action on a transversely symplectic foliation. This provides a framework to study the Hamiltonian actions on many interesting singular (possibly non-Hausdorff) symplectic spaces, such as symplectic orbifolds, symplectic quasi-folds (by E. Prato), and the leaf spaces of characteristic Reeb foliations in contact and co-symplectic geometries. We explain that under reasonable conditions, the components of a moment map introduced by us are still Morse-Bott functions with even indexes. This in particular leads to a foliated version of the Atiyah-Guillemin-Sternberg-Kirwan convexity theorem. This talk is based on a joint work with R. Sjamaar. (Received August 29, 2016)