

Northern California Symplectic Geometry Seminar

BERKELEY – DAVIS – SANTA CRUZ – STANFORD

Monday, November 7th, at **Stanford**

2:30–3:30pm, room 383N

Doris Hein (UC Santa Cruz)

“Generalizations of the Conley conjecture via localization of filtered Floer homology”

Abstract: Stated in 1984, the Conley conjecture asserts the existence of infinitely many distinct periodic orbits of Hamiltonian diffeomorphisms on tori. In this form, it was proved by Hingston and subsequently established in a variety of more general settings. In this talk, I will discuss further generalizations based on the proofs by Ginzburg and Gürel. In order to use ideas from their proofs, I need to construct a localization of filtered Floer homology for small action intervals. This will be done by bounding the energy of certain Floer trajectories away from zero to obtain a direct sum decomposition of the homology groups. Using this localization, the local argument proving the Conley conjecture can be applied independent of the surrounding symplectic manifold.

3:30–4:00pm — Tea Break, 2nd floor lounge

4:00–5:00pm, room 383N

Sheel Ganatra (MIT/Berkeley)

“On the Hochschild (co)homology of the Fukaya category”

Abstract: Let M be an exact symplectic manifold. Under a non-degeneracy assumption implying the existence of enough Lagrangians, we show that the symplectic cohomology of M is isomorphic to both the Hochschild cohomology and Hochschild homology (with a shift) of M 's wrapped Fukaya category. The relevant ingredients are: Fourier-Mukai theory for the wrapped Fukaya category via holomorphic quilts, a version of the Cardy condition, and a new self-duality for the wrapped Fukaya category (a non-compact version of the Calabi-Yau condition).

There will be a dinner at 6pm.