Symplectic Geometry Seminar

Monday, Oct 14

4:00pm-5:00pm, room 383N

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"Symplectic and contact algebras"

Abstract: We give a symplectic homology interpretation of the contact homology algebra of the ideal contact boundary of a Weinstein manifold. A more detailed description in the relative case is as follows. We associate to an exact Lagrangian submanifold with ideal Legendrian boundary a family of differential graded algebras generated by Hamiltonian chords (the generators of positive wrapped Floer homology) parameterized by a simplex. These dgas are all homotopic to a dga with only linear differential (the tensor product of the chain complex of wrapped Floer homology). We define obstructions to the existence of a canonical such homotopy by counting curves rigid in the moduli space parameterized by the simplex and show that they give a dga that is quasi-isomorphic to the contact homology dga of the ideal Legendrian boundary.