

A Semi-Infinite Cycle Construction of Floer Homology

Maksim Lipyanskiy
(MIT)

April 4, 2008

I will describe a new construction of Floer Theories based on a notion of "semi-infinite" geometric cycle. As opposed to the traditional Morse-theoretic approach, no transversality/nondegeneracy assumptions are necessary for the definition. I will illustrate the theory on two examples: Seiberg-Witten-Floer homology as well as Hamiltonian Floer theory for loops in \mathbb{C}^n .

1:00 p.m.
Math 520
Columbia University