

Northern California Symplectic Geometry Seminar

BERKELEY – DAVIS – SANTA CRUZ – STANFORD

Monday, October 3, 2005

BERKELEY, Etcheverry Hall and Evans Hall

2:30–3:30

3106 Etcheverry Hall – see <http://www.me.berkeley.edu/directions.html> for a map
Yaron Ostrover (University of Tel Aviv)

“On the extremality of Hofer’s metric”

Let M be a closed symplectic manifold with a norm on the space of all smooth functions on M which are zero mean normalized with respect to the canonical volume form. We show that, if this norm is bounded from above by the sup-norm and is invariant under the action of Hamiltonian diffeomorphisms, then it is also invariant under all volume preserving diffeomorphisms. We also prove that the norm is not equivalent to the sup-norm, then the induced Finsler metric on the group of Hamiltonian diffeomorphisms of M vanishes identically. This constitutes one more step in advancing toward the proof of the uniqueness of Hofer’s metric on the group of Hamiltonian diffeomorphisms.

3:30–4:00

1015 Evans Hall
Tea break

4:15–5:15

3 Evans Hall

Andreas Floer Memorial Lecture

François Lalonde (University of Montreal)

“Cluster Homology, a universal Floer theory and some applications”

I will describe in this talk a universal Lagrangian Floer homology, without obstruction, whose main idea is based on natural “clustered moduli spaces” in which the undesirable boundary components, resulting from the codimension 1 bubbling off of holomorphic discs, disappear by appropriate gluings that I will describe. I will describe the first topological, analytic and dynamical applications of this theory. (Joint work with Octav Cornea.)

Please contact alanw@math.berkeley.edu to arrange parking.

There will be a dinner at 6pm

—Y. Eliashberg
D. Fuchs
V. Ginzburg
R. Montgomery
X. Tang
A. Weinstein