

New York Area Symplectic Seminar

at Stony Brook University

Friday, February 22, 2008
Math Bldg, Rm P-131

4:00pm Junho Lee (UCF)

Local Gromov-Witten Invariants of Spin Curves

Abstract: This is a joint work with Thomas H. Parker. We define a new type of symplectic “local Gromov-Witten invariant” of a spin curve. When X is a Kahler surface with a smooth canonical divisor D , its (full) GW invariants are expressed in terms of such local invariants, which in turn are universal functions determined by the genera of the canonical divisor components and the holomorphic Euler characteristic of X . We also show how these local GW invariants arise from an obstruction bundle (in the sense of Taubes) over the space of stable maps into curves. This yields an interesting theorem relating two- and four-dimensional Gromov-Witten theory.

5:15pm Octav Cornea (Montreal)

Rigidity of Monotone Lagrangians

Abstract: I will discuss some forms of rigidity for monotone Lagrangian submanifolds. A (very) simple example of the phenomena that I’ll focus on is provided by the following statement: any two monotone Lagrangians in $\mathbb{C}P^n$ intersect or one of them is small in the sense that its Gromov width is strictly smaller than that of $\mathbb{C}P^n$. Joint work with Paul Biran

Tea 3:30-4pm, Math Bldg, Rm 4-125