

Northern California Symplectic Geometry Seminar

BERKELEY – DAVIS – SANTA CRUZ – STANFORD

Monday, November 4, 2013

EVANS HALL, BERKELEY

2:30–3:30 (Room 939)

Penka Georgieva (Princeton)

Enumeration of real rational curves

Abstract: The classical problem of enumerating rational curves in projective spaces is solved using a recursion formula for Gromov-Witten invariants. In this talk, I will describe a similar relation for real Gromov-Witten invariants with conjugate pairs of constraints. An application of this relation provides a complete recursion for counts of real rational curves with such constraints in odd-dimensional projective spaces. I will outline the proof and discuss some vanishing and non-vanishing results. This is joint work with A. Zinger.

3:30–4:00 (Room 1015)

Tea Break

4:15–5:15 (Room 740)

Dietmar Salamon (ETH Zürich)

GIT and the moment-weight inequality

Abstract: In this lecture I will explain the moment-weight inequality, and its role in the proof of the Hilbert-Mumford numerical criterion for μ -stability. The setting is Hamiltonian group actions on closed Kaehler manifolds. The moment-weight inequality relates the Mumford numerical invariants to the norm of the moment map on the complexified group orbit. Key ingredients in the proof are the negative gradient flow of the moment map squared and the Kemp-Ness function. This is joint work with Valentina Georgoulas and Joel Robbin, based on conversations with Xiuxiong Chen, Song Sun, and Sean Paul.

There will be a dinner at 6:00

—D. Auroux, Y. Eliashberg, D. Fuchs, V. Ginzburg, M. Hutchings, E. Ionel, R. Montgomery, K. Wehrheim, A. Weinstein