Seminar/Talk

Symplectic cohomology, mirror symmetry, and Lagrangian embeddings

Daniel Pomerleano
Imperial College, London

Host: Tamas Hausel

Symplectic cohomology is a version of Hamiltonian Floer cohomology defined for certain open symplectic manifolds. Early work of Viterbo showed that this invariant gives a powerful tool for attacking Lagrangian embedding questions. More recently, symplectic cohomology has emerged as a central object of study in mirror symmetry. After a gentle introduction to these ideas, we will describe a new approach, developed in joint work with Sheel Ganatra, to making (partial) computations of the symplectic cohomology of smooth affine algebraic varieties. For a large class of affine varieties X, this allows us to produce classes in the symplectic cohomology of X satisfying prescribed algebraic relations predicted by mirror symmetry. We will conclude by discussing how these classes impose strong restrictions on exact Lagrangian embeddings in three dimensional conic bundles over (C^*)^2.

Wednesday, April 12, 2017 01:45pm - 03:45pm
Seminar room Big Ground floor / Office Bldg West (I21.EG.101)

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