Symplectic Geometry Seminar

Monday, Jan 12, at 4pm
Room 383N

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Counting Holomorphic Discs on Calabi-Yau 3-Folds with K3 Fibration and Real Noether-Lefschetz Theory

Abstract

In this talk, we will introduce a real analogue of Noether-Lefschetz number which captures the existence of holomorphic discs with boundary on special Lagrangians. We will study the holomorphic discs counting on Calabi-Yau 3-folds with K3 fibration. The open Gromov-Witten invariant on such Calabi-Yau 3-folds (when it is well-defined) can be expressed in terms of reduced open Gromov-Witten invariants of K3 surfaces and the real Noether-Lefschetz numbers.