

Mathematics Department Colloquium

Organizer: Maciej Zworski

Thursdays, 4:10–5:00pm, Evans 60

February 23 **Lenhard L. Ng**, Stanford University

Symplectic geometry, holomorphic curves, and topology

I will discuss a program for studying smooth manifolds and submanifolds using symplectic and contact geometry. By counting holomorphic curves in certain canonical contact manifolds associated to these smooth objects, one obtains smooth invariants that are quite strong. I will describe one consequence of this program, a knot invariant, and examine its topological properties.