BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

EQUIVARIANT WRAPPED FUKAYA CATEGORIES AND THE FUKAYA CATEGORY OF SYMPLECTIC QUOTIENTS

Jiawei Hu

Boston University

CCDS 365, September 17, 2024, 4-5pm

Abstract: This talk is based on joint work with Dongwook Cho, Yan-Lung Leon Li, and Siu-Cheong Lau. Teleman and Fukaya conjectured that, given a symplectic manifold with a Hamiltonian torus action, the Fukaya category of the symplectic quotient should be equivalent to the equivariant Fukaya category of the original manifold. This conjecture was later extended by Lekili and Segal. We propose a construction of equivariant Floer cohomology via the Borel model and demonstrate several applications. In particular, we outline how, in certain cases, one can recover the non-equivariant Fukaya category of the original manifold from data on the quotient. We also show that similar ideas extend naturally to Liouville sectors, suggesting the possibility of a G-equivariant sectorial decomposition of Liouville manifolds.

See `http://math.bu.edu/research/geom/seminar.html` or contact Siu-Cheong Lau (*scllouis@bu.edu*) or Brian Williams (*bwill22@bu.edu*) for more information.