

SCMS Seminar



BCOV INVARIANT AND BIRATIONAL EQUIVALENCE

Yeping Zhang
Kyoto University

Lecture

Time: 14:00-15:00, Tuesday, March 12th, 2019

Venue: Room 106, Shanghai Center for Mathematical Sciences

Abstract: The BCOV invariant is an invariant for Calabi-Yau manifolds. In this talk, we extend the BCOV invariant to Calabi-Yau pairs, i.e., a Kahler manifold equipped with a pluricanonical divisor. In certain case, this BCOV invariant is equivalent to an equivariant BCOV invariant introduced by Yoshikawa.

Moreover, this BCOV invariant is well-behaved under birational equivalence. We expect that these constructions lead to a positive answer to the following conjecture: the BCOV invariant for Calabi-Yau threefold is a birational invariant.