



FUDAN-SCMS ALGEBRAIC GEOMETRY SEMINAR

ZOOM MEETING SEMINAR

LECTURE :

MOTIVIC INTEGRATION AND BCOV INVARIANTS

Speaker: Lie Fu (Université Claude Bernard Lyon 1 & Radboud University)

Time: Thu, May 20, BJS 16:00-17:00 (BST 9:00-10:00)

Zoom Meeting Id: 837 4054 8487

Password: 083888

Abstract: The BCOV invariant, named after Bershadsky, Cecotti, Ooguri and Vafa, is a real-valued invariant of Calabi-Yau manifolds constructed from Ray-Singer's analytic torsion. They are conjectured to encode the genus-1 Gromov-Witten invariant under mirror symmetry. Based on the previous study of Yeping Zhang, we show that birationally equivalent Calabi-Yau manifolds have the same BCOV invariant, confirming a conjecture of Fang-Lu-Yoshikawa and Eriksson - Freixas i Montplet-Mourougane. One key construction in our proof comes from the theory of motivic integration. This is a joint work with Yeping Zhang.