

Cirici Joana

Title. Batalin-Vilkovisky and hypercommutative algebras in complex geometry

Abstract. I will review some constructions of BV and hypercommutative algebras for manifolds with additional geometric structures, ranging from Poisson to Hermitian manifolds. Such algebra structures are related to the extended deformation theory introduced by Barannikov and Kontsevich for Calabi-Yau manifolds. I will explain how, using mixed Hodge theory at the homotopical level, one can prove hypercommutative formality of compact Kähler manifolds. This talk includes joint work with Geoffroy Horel and joint work in progress with Scott Wilson.