Formality of hypercommutative algebras of Calabi-Yau manifolds

Joana Cirici

Any Batalin–Vilkovisky algebra with a homotopy trivialization of the BV-operator gives rise to a hypercommutative algebra structure at the cochain level which, in general, contains more homotopical information than the hypercommutative algebra introduced by Barannikov and Kontsevich on cohomology. In this talk, I will explain how to use the purity of mixed Hodge structures to show that the canonical hypercommutative algebra defined on any compact Calabi–Yau manifold is formal. This is joint work with Geoffroy Horel.