

Given a dg-category over a field, its Hochschild cohomological complex parametrizes all curved A-infinity deformations, as described in the work of Lowen--Van den Bergh. In this talk I will present a joint work with Katzarkov and Pandit, in which we prove that in the case of formal deformations, and with reasonable finiteness assumptions on the dg-category, all deformations are uncurved. Moreover we obtain an existence result of single compact generators in formal deformations. The proof uses Lurie's formal moduli theory and E_2 -algebras. I will then talk about the case of families of schemes, analytic varieties and deformation quantization modules.