

1107-14-379

**Dima Arinkin, Andrei Caldararu\*** (andreic@math.wisc.edu) and **Marton Hablicsek**. *An algebraic proof of the Barannikov-Kontsevich theorem.*

We present a new algebraic proof of a claim of Barannikov-Kontsevich, which was first proved with analytic methods by Sabbah. This result is conceptually the analogue of the Hodge-de Rham degeneration statement (which applies for complex Kahler manifolds), but applied to a dg category of matrix factorizations. Our proof relies on reducing to positive characteristic and then applying our earlier results on formality of derived intersections in Azumaya spaces (spaces endowed with an Azumaya algebra). (Received January 19, 2015)