

1012-14-68

Vasiliy A Dolgushev* (vald@math.northwestern.edu), Mathematics Department,
Northwestern Univ., 2033 Sheridan Rd., Office B2, Evanston, IL 60208. *Hochschild cohomology
versus orbifold cohomology.*

We prove the additive version of the conjecture proposed in 2002 by Ginzburg and Kaledin. This conjecture states that if X/G is an orbifold modeled on a quotient of a smooth affine symplectic variety X (over C) by a finite group $G \subset \text{Aut}(X)$ and A is a G -stable quantum algebra of functions on X then the graded vector space of the Hochschild cohomology of the algebra A^G of invariants is isomorphic to the graded vector space of the Chen-Ruan (stringy) cohomology of the orbifold X/G . This talk is based on joint paper math.QA/0410562 with P. Etingof. (Received September 05, 2005)