

Stanford Algebraic Geometry — Seminar —

THE GENERALIZED HORI-VAFA CONJECTURE FOR BIG QUANTUM COHOMOLOGY

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Abstract

Few years ago the generalized Hori - Vafa conjecture was proposed rigorously by joint work with Bertram and Ciocan-Fontanine: Let X be a complex vector space with an algebraic G -action containing homotheties. Let T be an its maximal torus subgroup. Then rational Gromov-Witten invariants for $X//G$ can be formulated from suitable twisted rational Gromov-Witten invariants for $X//T$. In the joint paper we verified the conjecture for some cases with the restriction of the quantum parameter space to the small space. In this talk, We will remove the restriction: We will construct new Frobenius-Saito structures from the big quantum cohomology of abelian quotients $X//T$. In some cases we will explain that these structures are isomorphic to the big quantum cohomology of nonabelian quotients $X//G$. This talk is joint work with I. Ciocan-Fontanine and C. Sabbah.

Friday, February 17

3:15 p.m.

Room 383-N

<http://math.stanford.edu/~vakil/s0506/>