

Yefeng Shen

Quantum spectrum and Gamma structures for FJRW theory of general type

In this talk, I will focus on quantum spectrum and asymptotic expansions in FJRW theory of singularities of general type. Inspired by Galkin-Golyshev-Iritani's Gamma conjectures for quantum cohomology of Fano manifolds, we propose Gamma conjectures for FJRW theory of general type. Here the Gamma structures are essential to understand the connection between algebraic structures of the singularities (such as Orlov's semiorthogonal decompositions of category of matrix factorizations) and the analytic structures (such as asymptotic expansions in FJRW theory). We will give some evidence for these conjectures. The talk is based on work joint with Ming Zhang.