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Cohomological Hall algebra actions and Kac polynomials

Tuesday, 28 June 2016 11:30 (50 minutes)

We consider cohomological Hall algebras associated to quivers and their actions on the cohomology of Nakajima varieties; we relate these algebras with the Yangians constructed by Maulik and Okounov, and show that their Hilbert series are encoded by the Kac polynomials of the underlying quiver. For instance, for the 1-loop quiver, one obtains the Yangian of $\widehat{gl(1)}$ used relevant in the study of the AGT conjecture on P^2 . We also speculate on what the analog of all this when the quiver gets replaced by a curve.

Summary

Presenter: SCHIFFMANN, Olivier (Université de Paris-Sud, Orsay) **Session Classification:** Plenary session