

ENUMERATIVE GEOMETRY SEMINAR

Speaker: Yehao Zhou
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Time: Wed. April 16th, 14:00 - 16:00

Venue: Room 102, SCMS

Stable envelope for critical loci

Abstract: In this talk we will introduce a generalization of Maulik-Okounkov's stable envelopes to equivariant critical cohomology. In the case of a tripled quiver variety with standard cubic potential, this reduces to MO's stable envelope for the Nakajima variety of the corresponding doubled quiver along the dimensional reduction. We define non-abelian stable envelopes for quivers with potentials following a similar construction of Aganagic-Okounkov, and use them to relate critical COHAs to the abelian stable envelopes. Explicit computations are given in three examples: 1) Verma modules and higher spin representations of Yangian of $\mathfrak{sl}(2)$; 2) oscillator representations of shifted Yangian of $\mathfrak{sl}(2)$; 3) fundamental representation of Yangian of $\mathfrak{sl}(2|1)$. This talk is based on joint work in progress with Yalong Cao, Andrei Okounkov, and Zijun Zhou.

