



ENUMERATIVE GEOMETRY SEMINAR

Speaker: Yehao Zhou SIMIS

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 sl(2); 2) oscillator representations of shifted Yangian of sl(2); 3) fundamental representation of Yangian of sl(2|1). This talk is based on joint work in progress with Yalong Cao, Andrei Okounkov, and Zijun Zhou.

