## Quantization in Representation Theory, Derived Algebraic Geometry, and Gauge Theory



Contribution ID: 6 Type: **not specified** 

## Higher spin representations of the Yangian of $\mathfrak{sl}_2$ and R-matrices

Tuesday 17 September 2024 11:00 (1 hour)

For the Yangian of  $\mathfrak{sl}_2$ , higher spin representations are tensor products of the evaluation pullback of the  $\ell_i+1$ -dimensional irreducible representations of  $\mathfrak{sl}_2$ , where  $\ell_i$  are the highest weights. In my talk, I will give a geometric realization of the higher spin representations in terms of the critical cohomology of representations of the quiver with potential of Bykov and Zinn-Justin. I will also talk about the construction of R-matrices via the lattice model and the weight functions.

This is based on my joint work with Paul Zinn-Justin.

Presenter: YANG, Yaping (University of Melbourne)