



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

ALGEBRA AND GEOMETRY SEMINAR

Higher spin representations of the Yangian of sl_2 and R-matrices

by

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Abstract

For the Yangian of sl_2 , higher spin representations are tensor products of the evaluation pullback of the ℓ_i+1 -dimensional irreducible representations of sl_2 , where ℓ_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.

Date : 13 September 2024 (Friday)

Time : 4:00pm - 5:30pm

Venue : Room 4472 (Lifts 25/26)

All are Welcome!