

Geometry, Physics, and Representation Theory
Northeastern University

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Monday, November 21, 2.50-3.50 pm, Lake Hall 509

**Comultiplication for shifted Yangians and quantum open Toda
lattice.**

Abstract.

This is a joint work with Michael Finkelberg, Joel Kamnitzer, Khoa Pham and Alex Weekes, arXiv:1608.03331. We define and study coproducts for shifted Yangians for any simply-laced Lie algebra. Generally, shifted Yangians do not have any bialgebra structure, rather there is a comultiplication from the tensor product of Yangians shifted by μ and ν to the Yangian shifted by $\mu + \nu$. We study a coproduct in type A quantum open Toda lattice in terms of this coproduct in the shifted Yangian of \mathfrak{sl}_2 .