

# Mathematical Physics Seminar

Wed, 10/05/2022, 1:30pm, on Zoom

**Speaker:**

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**Title:**

Title: Associators for one dimensional representations of shifted quantum affine algebras

**Abstract:**

To a finite dimensional complex simple Lie algebra  $\mathfrak{g}$  one attaches the quantum affine algebra in two equivalent ways, the Drinfeld-Jimbo quantum group of the affine Lie algebra of  $\mathfrak{g}$ , and the Drinfeld affinization of the quantum group of  $\mathfrak{g}$ . Modifying the Drinfeld affinization procedure Finkelberg-Tsybaliuk defined the shifted quantum affine algebras to study K-theoretical Coulomb branches.

In this talk I will explain a polynomiality property for the Drinfeld-Jimbo coproduct of the quantum affine algebra. For  $\mathfrak{g}$  of type A, this leads to nontrivial associator maps for triple tensor products of representations of shifted quantum affine algebras where the middle factor is one dimensional.

**Zoom Link:** available at <https://www.math.purdue.edu/~ebkaufma/seminar.html>