Mathematical Physics Seminar

Wed, 10/19/2022, 1:30pm, on Zoom

Speaker:

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Title: Pre-fundamental representations for the Hubbard model and AdS/CFT.

Abstract: There is a class of representations of quantum groups, referred to as prefundamental representations, that plays an important role in the solution of integrable models. The first example of such representations was given by V. Bazhanov, S. Lukyanov and A. Zamolodchikov in the context of two dimensional conformal field theory in order to construct Baxter Q-operators as transfer matrices. At the same time, there is a rather exceptional quantum group that governs the integrable structure of the one dimensional Hubbard model and plays a fundamental role in the AdS/CFT correspondence. In this talk I will introduce prefundamental representations for this quantum group, explain their basic properties and discuss some of their applications.

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