

Graduate Mathematics Seminar Series

The Yang-Baxter Equation and Quantum Groups

By

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Abstract: The Yang-Baxter equation is a key tool in both knot theory and quantum groups. In this talk, we will explore how it appears in the study of knots, leading to invariants like the Jones polynomial. We will also discuss its connection to Hopf algebras, which play a central role in quantum groups. Through examples, we will see how these ideas come together and why the Yang-Baxter equation is so important in mathematical physics and algebra.

Advisor: Asst. Prof. Cihan Okay **Date:** March 27, Thursday, 2025

Time: 16:30 – 17:30

Place: SA – 141