

TITLE: "Picard-Lefschetz oscillators for the Drinfeld-Lafforgue compactification"

Abstract:

This talk will report on the work of Simon Schieder, a graduate student at Harvard.

Let X be a smooth projective curve and G a reductive group. We consider the moduli stack Bun_G that classifies G -bundles on X . The diagonal morphism $\text{Bun}_G \rightarrow \text{Bun}_G \times \text{Bun}_G$ admits a canonical compactification, which is a tool to handle problems that are caused by the fact that Bun_G has "horns". Let us denote this compactification by $\bar{\text{Bun}}_G$. In this talk we will be interested in the intersection cohomology sheaf of $\bar{\text{Bun}}_G$, and some related questions. We will see that what encodes the answer to such questions is the phenomenon of "Picard-Lefschetz oscillators".