Speaker: Federico Scavia

Title: Motivic classes of classifying stacks of algebraic groups

Abstract: The Grothendieck ring of algebraic stacks was introduced by Ekedahl in 2009. It may be viewed as a localization of the more classical Grothendieck ring of varieties. If G is a finite group, then the class $\{BG\}$ of its classifying stack BG is equal to 1 in many cases, but there are examples for which $\{BG\} \neq 1$. When G is connected, $\{BG\}$ has been computed in many cases in a long series of papers, and it always turned out that $\{BG\} * \{G\} = 1$. We exhibit the first example of a connected group G for which $\{BG\} * \{G\} \neq 1$. As a consequence, we produce an infinite family of non-constant finite étale group schemes A such that $\{BA\} \neq 1$.