Lecture series **Affine grassmannians and torsors over smooth curves for smooth algebraic groups.**

Speaker: Alexis Bouthier

Abstract:

The goal is to survey applications of affine grassmannians of smooth group schemes . We will first start to give a new and intrinsic construction of affine grassmannians for smooth group schemes, then focus on the field case and study its geometry to deduce Cartan and Birkhoff decompositions as well as the classifications of G-torsors over the projective line. After that, we will explain how to generalize the theorem of Raghunathan-Ramanathan on G-torsors on the affine line to arbitrary smooth groups. The lectures are based on an ongoing project with K. Cesnavicius and F. Scavia.

Schedule: February 12, 16 during 11–12:30.