Mini -Course on **Generically trivial torsors under algebraic groups**

Speaker: Kestutis Cesnavicius

Abstract:

For a smooth variety X over a field k and a smooth k-group scheme G, Grothendieck and Serre predicted that every generically trivial G-torsor over X trivializes Zariski locally on X. I will explain a resolution of the Grothendieck–Serre problem, the main new case being when k is imperfect, in which pseudo-reductive and quasi-reductive groups play a central role. The argument is built on new purity and extension theorems for torsors valid for pseudo-finite, pseudo-proper, and pseudo-complete groups, and it also rests on several other new results on algebraic groups in positive characteristic. The lectures are based on joint work with Alexis Bouthier and Federico Scavia.

Schedule: February 23, 24, 26, 27 at 2:30 p.m.