

Ruochuan Liu: **Finiteness of cohomology of relative (ϕ, Γ) -modules.**

We will show finiteness of the higher direct images of geometric (ϕ, Γ) -modules for proper smooth morphisms of smooth rigid analytic varieties. As a consequence, for proper smooth rigid analytic varieties over finite extensions of \mathbb{Q}_p , the proétale cohomology groups of \mathbb{Q}_p -local systems are all finite dimensional \mathbb{Q}_p -vector spaces. This is joint work with Kedlaya.