

Étale cohomology reading seminar

Exercises for Week 7

Exercise 1. Let U_1, U_2 be a Zariski open cover of a scheme X . Using Čech cohomology or otherwise, produce the associated Mayer-Vietoris long exact sequence in cohomology for étale sheaves on X .

Exercise 2. At this point of the seminar, what can you say about the cohomology of the affine or projective line (or any other simple variety) over a field with constant coefficients? Think about how you would approach such a computation (e.g. how do you approach it in topology?).