

1116-13-250

**Hannah Robbins\*** ([robbins@roanoke.edu](mailto:robbins@roanoke.edu)). *Associated primes of local cohomology after adjoining indeterminates part 2: the general case.* Preliminary report.

Let  $A$  be a domain finitely generated as an algebra over a field,  $k$ , of characteristic zero,  $R = A[t_1, \dots, t_\ell]$  or  $A[[t_1, \dots, t_\ell]]$ , and  $I$  an ideal of  $R$ . If  $A$  has a resolution of singularities,  $Y_0$ , which is the blowup of  $A$  along an ideal of depth at least two and is covered by a finite number of open affines with  $H^j(Y_0, \mathcal{O}_{Y_0})$  of finite length over  $A$  for  $j > 0$ , we prove that  $\text{Ass}_R H_I^i(R)$  is finite for every  $i$ . In particular this holds when  $A$  is a finite dimensional normal domain with an isolated singularity which is a finitely generated algebra over a field of characteristic 0.

This generalizes my previous result which required that the blow up of  $A$  be covered by 2 or 3 open affines instead of any finite number. (Received August 18, 2015)