1018-13-131 **Anurag K. Singh*** (singh@math.utah.edu), Department of Mathematics, University of Utah, 155 South 1400 East, Room 233, Salt Lake City, UT 84112. *Prime-torsion in local cohomology.* Preliminary report.

Lyubeznik conjectured that for an ideal $\mathfrak{a}$ of a regular ring $R$, the local cohomology modules $H^i_{\mathfrak{a}}(R)$ have finitely many associated primes. This implies, in particular, that for a polynomial ring $R$ over the ring of integers, a module of the form $H^i_{\mathfrak{a}}(R)$ has $p$-torsion for at most finitely many prime integers $p$. We shall discuss some special cases of this conjecture. (Received March 02, 2006)