Tony Joseph Puthenpurakal* (tputhen@gmail.com), Department of Mathematics, IIT-Bombay, Powai, Mumbai, 400076, India. Associated primes of Local cohomology modules over Regular rings.

Let $R$ be an excellent regular ring of dimension $d$ containing a field $K$ of characteristic zero. Let $I$ be an ideal in $R$. We show that $\text{Ass } H^{d-1}_I(R)$ is a finite set. As an application we show that if $I$ is an ideal of height $g$ with $\text{height } Q = g$ for all minimal primes of $I$ then for all but finitely many primes $P \supseteq I$ with $\text{height } P \geq g + 2$, the topological space $\text{Spec}^c(R_P/IR_P)$ is connected. (Received December 19, 2014)