

ON THE VANISHING AND THE FINITENESS OF SUPPORTS OF GENERALIZED LOCAL COHOMOLOGY MODULES

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TÓM TẮT:

Let (R, \mathfrak{m}) be a Noetherian local ring, I an ideal of R and M, N two finitely generated R -modules. The first result of this paper is to prove a vanishing theorem for generalized local cohomology modules which says that $H_j^I(M, N) = 0$ for all $j > \dim(R)$, provided M is of finite projective dimension. Next, we study and give characterizations for the least and the last integer r such that $\text{Supp}(H_r^I(M, N))$ is infinite.