



**THE SIMPLE PROOF FOR THE ISOMORPHISM  
OF LOCAL COHOMOLOGY MODULES**

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**Abstract**

Let  $M$  be an  $R$ -module over a commutative noetherian ring  $R$  and let  $t$  be a non negative integer. By using basic ways of methodes of local cohomology modules methodes, we prove for all  $r$ ,  $0 \leq r \leq t$ ,  $H_a^{t-r}(H_b^r(M)) \in \mathcal{C}$ . Then  $H_{a+b}^t(M) \in \mathcal{C}$ .

**Keywords and phrases:** local cohomology, Serre subcategory.