

ON PSEUDO SUPPORTS AND NON COHEN-MACAULAY LOCUS OF A FINITELY  
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TÓM TẮT:

Let  $(R, \mathfrak{m})$  be a Noetherian local ring and  $M$  a finitely generated  $R$ -module with  $\dim M = d$ . Let  $i$  be a non negative integer. Following M. Brodmann and R.Y. Sharp (2002), the  $i$ -th pseudo support of  $M$  is the set of all prime ideals  $\mathfrak{p}$  of  $R$  such that  $H^{i-\dim R/\mathfrak{p}}_{\mathfrak{p}}(M_{\mathfrak{p}})$  is not zero. In this paper, we study the pseudo supports and the non-Cohen–Macaulay locus of  $M$  in connections with the catenarity of the ring  $R/\text{Ann}RM$ , the Serre conditions on  $M$ , and the unmixedness of the local rings  $R/\mathfrak{p}$  for certain prime ideals  $\mathfrak{p}$  in  $\text{Supp}R(M)$ .