

LOCAL COHOMOLOGY MODULES AND RELATIVE COHEN-MACAULAYNESS

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Abstract

Let (R, \mathfrak{m}) denote a commutative Noetherian local ring and let M be a finite R -module. In this paper, we study relative Cohen-Macaulay rings with respect to a proper ideal \mathfrak{a} of R and give some results on such rings in relation with Artinianness, Non-Artinianness of local cohomology modules and Lyubeznik numbers. We also present some related examples to this issue.

Keywords: local cohomology modules, Lyubeznik numbers, Non-Artinian modules, relative Cohen-Macaulayness.

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