

COHEN-MACAULAY MODULES OVER YONEDA ALGEBRAS

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For a ring Λ and a Λ -module M , the abelian group

$$\Gamma = \bigoplus_{i \geq 0} \text{Ext}_{\Lambda}^i(M, M)$$

with the Yoneda product is called the Yoneda algebra, which has widely been studied, for example, in the theory of Koszul duality.

We investigate the properties of Yoneda algebras Γ in the following setup:

- Λ is a finite dimensional algebra of finite representation type.
- M is an additive generator for the module category.

In the talk, we will give some fundamental results on these Γ , such as coherence, Gorenstein property, and a description of the stable category of Cohen-Macaulay Γ -modules.