

On linearly oriented pullback of finite dimensional algebras

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Abstract

Given two epimorphisms of algebras $f: A \rightarrow B$ and $g: C \rightarrow B$ the pullback R is the subalgebra of $A \times C$ defined by $\{(a, c) \in A \times C \mid f(a) = g(c)\}$. For finite dimensional k -algebras (k an algebraically closed field), which can be determined by bounded quivers, the quiver ordinary of the pullback R can be determined by those of A , B and C . Here we consider a particular class, the so-called linearly oriented pullback, where the injective and projective R -modules can be determined by those ones over A and C . For this class of pullbacks, we study the relationship between the category of modules over the involved algebras.