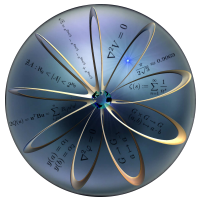

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properties of the ordinary quiver

Canonical name	PropertiesOfTheOrdinaryQuiver
Date of creation	2013-03-22 19:17:44
Last modified on	2013-03-22 19:17:44
Owner	joking (16130)
Last modified by	joking (16130)
Numerical id	4
Author	joking (16130)
Entry type	Theorem
Classification	msc 16S99
Classification	msc 20C99
Classification	msc 13B99

Let k be a field and A be a finite-dimensional algebra over k. Denote by Q_A http://planetmath.org/OrdinaryQuiverOfAnAlgebrathe ordinary quiver of A.

Theorem. The following statements hold:

1. If A is basic and connected, then Q_A is a connected quiver.
2. If Q is a finite quiver and I is an http://planetmath.org/AdmissibleIdealsBoundQuiverAn ideal in kQ and $A = kQ/I$, then Q_A and Q are isomorphic.
3. If A is basic and connected, then A is isomorphic to kQ_A/I for some (not necessarily unique) http://planetmath.org/AdmissibleIdealsBoundQuiverAndItsAl ideal I.

For proofs please see [**?**, Chapter II.3].

References

[1] I. Assem, D. Simson, A. Skowronski, *Elements of the Representation Theory of Associative Algebras, vol 1.*, Cambridge University Press 2006, 2007