

SEMISIMPLE SUBMODULES IN SOME SPECIALLY
ORIENTED DYNKIN CASES

Csaba Szántó

Abstract. Let X be a finitely generated left module over a specially oriented Dynkin path algebra. We will consider the semisimple submodules of X with fixed Jordan-Hölder dimension. The aim of this paper is to try to classify these submodules into "same factor" families, the factor modules relatively to the submodules in a fixed family being isomorphic. In some cases a parameterization of these families will be possible. For this we will use some ideas, results of P.N.Anh [1] and M.Reineke [3]

MSC 2000. 16G20.

Key words. Dynkin quiver, semisimple modules, Hall algebras.

REFERENCES

- [1] ANH, P.N. *Hall polynomials for \tilde{A}_n* , preprint 1998.
- [2] AUSLANDER, M., REITEN, I. AND SMALØ, S.O., *Representation Theory of Artin Algebras*, Cambridge studies in advanced mathematics, No. 36 (1995).
- [3] REINEKE, M. *On the coloured graph structure of Lusztig's canonical basis*, Mathematische Annalen, **307** (1997), 705-723.

Received: July 7, 2000

"Babeş-Bolyai" University
Faculty of Mathematics and Comp. Science
Str. M. Kogălniceanu 1
RO-3400 Cluj-Napoca, Romania
E-mail: szanto@math.ubbcluj.ro