

ON THE MULTIPLICITY MODULE OF A POINTED GROUP

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**Abstract.** In this paper we give a module-theoretic approach to the notion of multiplicity module of a pointed group using techniques from the theory of group-graded algebras.

**MSC 2000.** 20C20, 16W50.

**Key words.**  $G$ -algebras, pointed groups, multiplicity module, group graded algebras.

REFERENCES

- [1] DICU, C. and MARCUS, A., *Group-graded algebras and the relative projectivity of pointed groups*, The Quarterly Journal of Mathematics, **57 (3)** (2006), 309–318.
- [2] DICU, C., *Group graded algebras and the relative freeness of pointed groups*, Mathematica, Tome **47 (70)** Nr. 2 (2005), 151–155.
- [3] MARCUS, A., *Representation Theory of Group Graded Algebras*, Nova Science Publishers, Commack, NY, 1999.
- [4] NĂSTĂSESCU, C. and VAN OSTAEYEN, F., *Graded ring theory*, North Holland, Amsterdam, 1982.
- [5] PUIG, L., *Pointed groups and constructions of modules*, J. Algebra **116** (1988), 7–129.
- [6] THÉVENAZ, J., *G-algebras and Modular Representation Theory*, Oxford Science Publication, The Clarendon Press, Oxford University Press, New-York, 1995.

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