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## GROUP GRADED ENDOMORPHISM ALGEBRAS AND MORITA EQUIVALENCES

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Abstract. We prove a group graded Morita equivalences version of the "butterfly theorem" on character triples. This gives a method to construct an equivalence between block extensions from another related equivalence.

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**Key words.** Block extension, centralizer subalgebra, crossed product, group graded Morita equivalence.

## REFERENCES

- C. Faith, Algebra: Rings, Modules and Categories I, Vol. 190, Springer-Verlag, Berlin, 1973.
- [2] A. Marcus, Representation theory of group-graded algebras, Nova Science, 1999.
- [3] B. Späth, Reduction theorems for some global-local conjectures, in Local Representations Theory and Simple Groups, EMS Ser. Congr. Rep., Eur. Math. Soc., Zürich, 2018, pp. 23–61.

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