

Graded polynomial identities of block-triangular matrices

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Abstract

Describing gradings on matrix algebras is important in the theory of algebras with polynomial identities. Let $\mathcal{A} = M_n(\mathbb{K})$ be the full matrix algebra of order n and G a group. Let $\eta = (g_1, \dots, g_n)$ be an n -uple of elements of G . If we set A_g to be the subspace spanned by the elementary matrices E_{ij} such that $g_i^{-1}g_j = g$, we obtain a G -grading on \mathcal{A} . In this work, our objective is to present the results of [1], on the description of the graded polynomial identities of block-triangular matrix algebras.

References

- [1] D. D. Silva, T. C. de Mello, Graded identities of block-triangular matrices. *Journal of Algebra*, 464 (2016), 246–265.

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