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Polynomial Identities Theory for Leibniz Algebras

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Abstract

In this talk we review the Polynomial Identity Theory for the case of Leibniz algebras which are non-antisymmetric generalization of Lie algebras introduced by Bloh. We concentrated on a apecial class of Leibniz algebras namely, null-filiform Leibniz algebras. This class of Leibniz algebras has maximal index of nilpotency. According to the usefullness of graded identities in studying algebras with polynomial identities, we introduce graded polynomial identities of null-filiform Leibniz algebras over a field K of characteristic 0 with respect to G-grading by $\mathbb{Z}$ and $\mathbb{Z}_i$. A complete abelian group grading on null-filiform Leibniz algebras has recently been determined by Calderon *et al.*.

References

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