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Barnes, Donald W. ([5-SYD-SM](#))

Schunck classes of soluble Leibniz algebras. (English summary)

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In the paper under review, the author investigates Schunck classes and projectors for (left) solvable Leibniz algebras, in parallel to the case of Lie algebras. In the introduction, some basic notions and results concerning the ideals generated by the squares of elements of a Leibniz algebra, the sum of nilpotent ideals of a Leibniz algebra of arbitrary dimension, and the Frattini subalgebra, are provided. The next section is devoted to the study of the properties of classes of quotients, subdirect sums, and Frattini extensions for a given class of Leibniz algebras $\mathcal{X}$, and of classes of Leibniz algebras whose primitive quotients are in $\mathcal{X}$. In the third section, the author considers the special properties of those Schunck classes which are formations.

The structures from the theory of solvable groups needed to define all these notions do not exist in the setting of Leibniz and Lie algebras. Therefore, Stitzinger defined $\mathfrak{F}$ -normalizers for Lie algebras using a property proved for those groups. The author copies that approach with only minor changes arising from the need to use the Frattini subalgebra in place of the Frattini ideal.

In the last section, properties of Leibniz algebras of biderivations are established.

Bakhrom A. Omirov

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Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.