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**Bakhrom Omirov\*** (omirovb@mail.ru), National University of Uzbekistan, 4, University street, Tashkent, 100174, Uzbekistan. *Finite-dimensional nilpotent Leibniz algebras and their derivations.*

Leibniz algebras are generalizations of Lie algebras and they have been introduced by J.-L. Loday as a non-antisymmetric version of Lie algebras. These algebras preserve a unique property of Lie algebras - the right multiplication operators are derivations. Many classical results of the theory of Lie algebras were extended to the case of Leibniz algebras. For instance, the analogue of Levi's theorem for Leibniz algebras is also true. Namely, it is proved that any finite-dimensional Leibniz algebra is decomposed into the semidirect sum of solvable radical and semisimple Lie subalgebra. Therefore, the biggest challenge in the classification problem of finite-dimensional Leibniz algebras is the study of solvable part. The method of the description of solvable Lie algebras with a given nilradical which involve outer derivations of a nilradical was extended to the case of Leibniz algebras. Therefore, the problem of classification of finite-dimensional Leibniz algebras reduces to study of nilpotent one and their derivations. In this talk we are going to present results on nilpotent Leibniz algebras and their derivations. (Received September 12, 2019)