ICM 1998, Berlin, Aug. 18–27

Abstracts of Short Communications and Posters

Section:

2. Algebra

1991 MS Classification: 17

Mikhalev, Alexander A., Moscow State University, Russia Umirbaev, Ualbai, South-Kazakstan Technical University, Kazakstan

Free Leibniz algebras

A Leibniz algebra is a vector space equipped with a product satisfying a variation of the Jacoby identity: $[x,[y,z]] = [[x,y],z] - [[x,z],y]$. Leibniz algebras were studied from the homological point of view by J. -L. Loday and T. Pirashvili in [1]. We study free Leibniz algebras. In particular, we prove that the variety of Leibniz algebras has the property of differential separability for subalgebras; the Jacobian conjecture is true for free Leibniz algebras; free Leibniz algebras are finitely separable. We consider also some interesting problems concerning primitive elements of free Leibniz algebras. Part of these results is the article [2].