

ALMOST LIE NILPOTENT NON-PRIME VARIETIES OF ASSOCIATIVE ALGEBRAS**O. B. Finogenova**

Received August 1, 2015

A variety of associative algebras is called *Lie nilpotent* if it satisfies the identity $[\cdots [[x_1, x_2], \dots, x_n] = 0$ for some positive integer n , where $[x, y] = xy - yx$. We study almost Lie nilpotent varieties, i.e., minimal elements in the set of all varieties that are not Lie nilpotent. We describe all almost Lie nilpotent varieties of algebras over a field of positive characteristic, both finite and infinite, in the cases when the ideals of identities of these varieties are nonprime in the class of all T -ideals.

Keywords: variety of associative algebras, identities of the associated Lie algebra, Lie nilpotency, Engel property.

O. B. Finogenova Cand. Phys.-Math. Sci., Ural Federal University, Yekaterinburg, 620002 Russia, e-mail: ob.finogenova@urfu.ru.

Cite this article as:

O. B. Finogenova, Almost Lie nilpotent non-prime varieties of associative algebras, *Tr. Inst. Mat. Mekh. UrO RAN*, 2015, vol. 21, no. 4, pp. 282–291 .