THE DIMENSION OF A VARIETY

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Abstract

Derived varieties were invented by P. Cohn in [4]. Derived varieties of a given type were invented by the authors in [10]. In the paper we deal with the derived variety $V_\sigma$ of a given variety, by a fixed hypersubstitution $\sigma$. We introduce the notion of the dimension of a variety as the cardinality $\kappa$ of the set of all proper derived varieties of $V$ included in $V$.

We examine dimensions of some varieties in the lattice of all varieties of a given type $\tau$. Dimensions of varieties of lattices and all subvarieties of regular bands are determined.

Keywords: derived algebras, derived varieties, the dimension of a variety.

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References


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