ABOUT A FAMILY OF NATURALLY GRADED NO p-FILIFORM LIE ALGEBRAS

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Abstract. The knowledge of the naturally graded algebras of a given class of Lie algebras offers essential information about the structure of the class.

So far, the classification of naturally graded Lie algebras is only known for some families of p-filiform Lie algebras. In certain sense, if $\mathfrak{g}$ is a naturally graded Lie algebra of dimension n, the first case of no p-filiform Lie algebras it happens when the characteristic sequence is $(n-3,2,1)$. We present the classification of a particular family of these algebras with finite arbitrary dimension, when the dimension of the derived ideal is minimum. The use of the package *Mathematica* 4 has been essential in order to obtain the results.

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