

1048-17-206

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Multipliers of Lie Algebras of Maximal Class. Preliminary report.

For a nilpotent Lie algebra, L , of dimension n with multiplier $M(L)$ define $t(L) = \frac{1}{2}n(n-1) - \dim M(L)$. The classification of all such Lie algebras for which $t(L) \leq 8$ is known, but by requiring L to be of maximal class, we can characterize L for cases in which $t(L) > 8$. In this talk we discuss how this classification led to a proposition which bounds $t(L)$. In addition, the group theory analogue of this proposition has been proven for maximal class p -groups. (Received February 08, 2009)