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Lie Bialgebra Structures on Not-Finitely Graded Lie Algebras $B(\Gamma)$ of Block Type

Lie bialgebra structures on a class of not-finitely graded Lie algebras $B(\Gamma)$ of Block type are investigated. By proving the triviality of the first cohomology group of $B(\Gamma)$ with coefficients in its adjoint tensor module, namely, $H^1(B(\Gamma), B(\Gamma) \otimes B(\Gamma)) = 0$, we obtain that all Lie bialgebra structures on $B(\Gamma)$ are triangular coboundary.

Keywords: Lie bialgebras, derivation, cohomology group, Lie algebras of Block type.

MSC: 17B10, 17B65, 17B68