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**Yuri Bahturin\*** ([yuri@math.mun.ca](mailto:yuri@math.mun.ca)), Department of Mathematics and Statistics, MUN, St. John's, NL A1C5S7, Canada. *Gradings of simple Lie algebras, actions of Hopf algebras and functional identities.*

We apply new results of Bresar, Chebotar and Martindale for the study of gradings by groups on simple Lie algebras of arbitrary characteristic or dimension. An important ingredient is viewing a graded algebra as the comodule algebra over the group algebra of the grading group. (Received January 25, 2008)