**Title:** Generalized near-derivations and their applications in Lie algebras

**Author(s):** Yi-Qiu Du and Yu Wang

Let $L$ be a Lie algebra. The aim of this paper is to investigate generalized near-derivations of $L$, which is a generalization of near-derivation initiated by BREŠAR in 2008. As an application we determine all linear maps $f : L \to L$ with the property that $[\ldots[[f, \delta_1], \delta_2], \ldots, \delta_n]$ is a derivation whenever $\delta_1, \delta_2, \ldots, \delta_n$ are derivations of $L$, where $n$ is a fixed positive integer.

**Address:**
Yi-Qiu Du
College of Mathematics
Jilin Normal University
Siping 136000
China

**Address:**
Yu Wang
Mathematics and Science College
Shanghai Normal University
Shanghai 200234
China