Abstract

In this talk, we provide a unified approach to study the cohomology theories and deformation theories of various types of operators in the category of Lie algebras, including modified r-matrices, crossed homomorphisms, derivations, homomorphisms, relative Rota-Baxter operators, twisted Rota-Baxter operators, Reynolds operators and deformation maps of matched pairs of Lie algebras. The main ingredients are quasi-twilled Lie algebras.