Abstract

In this talk, we provide a unified approach to study cohomologies and deformations of various kinds of operators on Lie triple systems such as r-matrices, relative Rota-Baxter operators, Reynolds operators etc. For this purpose, we examine two kinds of deformation maps on quasi-twilled Lie triple systems. A quasi-twilled Lie triple system can be decomposed into two subspaces, each of which is a subalgebra. Furthermore, we construct controlling algebras of two kinds of deformation maps, which recover those of several kinds of operators on Lie triple systems.