

Abstract

In this talk, we introduce the notion of (noncommutative) transposed Poisson conformal algebras, which serve as the conformal analogues of transposed Poisson algebras and admit a rich class of identities. We show that the tensor product of two transposed Poisson conformal algebras is also a transposed Poisson conformal algebra. Moreover, we establish a close relationship between transposed Poisson conformal algebras and Hom-Lie conformal algebras, and give the compatibility conditions between a Poisson conformal algebra and a transposed Poisson conformal algebra. In addition, we provide several constructions of transposed Poisson conformal algebras arising from related algebraic structures. Finally, a complete classification of compatible noncommutative transposed Poisson conformal algebraic structures over a class of Lie conformal algebras $W(a, b)$ is given.