Abstract

We introduce a notion of transposed Poisson algebra which is a dual notion of the Poisson algebra by exchanging the roles of the two binary operations in the Leibniz rule defining the Poisson algebra. We interpret the close relationships between it and some structures such as Novikov-Poisson and pre-Lie Poisson algebras including the example given by a commutative associative algebra with a derivation, and 3-Lie algebras.