

On the classification of left-symmetric dialgebras

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*This paper is dedicated to my beloved parents: Mirzarustam
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Abstract. The structure theory of left-symmetric algebras (also known as pre-Lie algebras) has been studied by many researchers. In this paper we initiate the study of left-symmetric dialgebras, which are related to left-symmetric algebras as Leibniz algebras are to Lie algebras. We introduce some basic concepts of the structure theory of left-symmetric dialgebras, and classify all 2-dimensional left-symmetric dialgebras over a field of characteristic 0.