LEVI-CIVITA CONNECTIONS ON BICOVARIANT DIFFERENTIAL CALCULUS

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Abstract:
In this talk, we will propose a definition of covariant Levi-Civita connections on a class of bicovariant differential calculi over Hopf algebras. Given a bi-invariant metric on such a calculus, we will present a sufficient condition for the existence of a unique bicovariant Levi-Civita connection on the calculus. We will mention examples of Hopf algebras that fit into this framework. This talk is based on a joint work with Jyotishman Bhowmick.