Yetter-Drinfel'd Hopf Algebras and Their Associated Algebras II

Abstract:
As explained in the first part, every left Yetter-Drinfel'd Hopf algebra can also be viewed as a right Yetter-Drinfel'd Hopf algebra, but over the dual Hopf algebra. Therefore, this algebra gives rise to two different Radford biproducts. In the talk, we describe two algebras that contain both of these Radford biproducts as subalgebras.

Both algebras admit a triangular decomposition, but only one of them is a Hopf algebra. We also compare these algebras to the ones that appear in the construction of deformed enveloping algebras.