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*Twisting of graded quantum groups and comodule algebras*

One particular interesting deformation of a Hopf algebra is its 2-cocycle twist. On another hand, a graded algebra can be deformed by its grade automorphisms, which is called Zhang twist. In this talk, we will introduce the sufficient conditions how to deform a Hopf algebra by Zhang twist. In addition, we will systematically describe a Zhang twist of a Hopf algebra as a 2-cocycle twist; and a Zhang twist of a comodule algebra as a 2-cocycle twist over the Manin's universal quantum groups.