

1145-16-2912 **Miodrag C Iovanov*** (miodrag-iovanov@uiowa.edu). *On the bijectivity of the antipode and serial quantum groups*. Preliminary report.

We survey a few recent results and classifications which involve Hopf algebras which are co-serial ("serial quantum groups"), and present some questions relating these to other problems. We investigate the bijectivity of the antipode of a one sided co-serial infinite dimensional Hopf algebra, and the left-right symmetry of this notion. We present some new ideas inspired by methods of representations of finite dimensional algebras as well as by those of tensor categories, and which can be of interest in other situations where the bijectivity of the antipode is an open question (such as Noetherian Hopf algebras). (Received September 25, 2018)