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Julia Plavnik* (julia@math.tamu.edu) and **Sarah Witherspoon**. *Projectivity and tensor products for some Hopf algebras*. Preliminary report.

In this talk, we will pose some questions of projectivity and tensor products of modules for finite dimensional Hopf algebras. To give some answer to the questions, we will construct many classes of examples in which tensor powers of non-projective modules are projective and tensor products of modules in one order are projective but not in the other order. Some of these examples coming from groups were found in work of Benson and Witherspoon, and more recently were put into a general context with other examples in a joint work with Witherspoon. One of the fundamental tools that we use to prove some properties of the modules is the theory of support varieties for these Hopf algebras, and we will mention some of the main ideas if the time allows. (Received September 13, 2016)