Martin Lorenz and Bach Nguyen*, nguyen.bach@temple.edu, and Ramy Yammine. Action of Hopf algebras and noncommutative prime spectra.

Let $H$ be a Hopf algebra, and $A$ be any associative unital algebra. Suppose $A$ is a left $H$-module algebra. Then the spectrum of $A$ admits a stratification with its strata indexed by $H$-prime ideals of $A$. Using this stratification to study $A$ was initiated by K. Goodearl and E. Letzter, then M. Lorenz, where they considered group actions. In this talk, we will discuss a generalization of their results to the setting of cocommutative Hopf algebra, where the $H$-strata can be described in term of the prime spectrum of certain commutative algebra. This is a joint work with M. Lorenz and R. Yammine. (Received January 22, 2019)