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Yevgenia Kashina* (ykashina@condor.depaul.edu), Department of Mathematical Sciences, DePaul University, Chicago, IL 60614. *Semisimple Hopf algebras of dimension p^n which fit into cocentral abelian extensions*. Preliminary report.

In this talk we will consider semisimple Hopf algebras of dimension p^n which fit into cocentral abelian extension $K \hookrightarrow H \twoheadrightarrow F$ where $K = (kG)^*$ and $F = kL$ for some group algebras G and L . Then H equals a bicrossed product $K \#_{\sigma}^{\tau} F$, with an action \rightharpoonup , trivial coaction, a cocycle σ , and a dual cocycle τ . We further assume that L is cyclic, which implies that H is equivalent to an extension with a trivial cocycle σ . For a fixed action, we consider the map from the group of extensions of F by K to the Schur multiplier of G which gives a way to describe all dual cocycles for certain concrete extensions. (Received March 10, 2008)