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Mitja Mastnak, Julia Pevtsova, Peter Schauenburg and Sarah Witherspoon*
(sjw@math.tamu.edu). *Cohomology of pointed Hopf algebras*. Preliminary report.

Andruskiewitsch and Schneider have classified finite dimensional pointed Hopf algebras with abelian groups of grouplike elements, and described their structure. We generalize a result of Ginzburg and Kumar, for small quantum groups, to these Hopf algebras: Their cohomology rings are finitely generated. While we do not fully compute the cohomology rings in general, we do obtain some structure results. These depend on our general theorem that the cohomology ring of a Hopf algebra in a braided monoidal category is braided commutative. (Received March 06, 2008)