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Van C. Nguyen* (vcnguyen@math.tamu.edu), Department of Mathematics, Mailstop 3368, Texas A&M University, College Station, TX 77843-3368. *Finite generation behaves differently in negative cohomology.*

While the usual cohomology rings of some finite dimensional Hopf algebras are known to be finitely generated, the same may not be true when we extend them to negative cohomology. In particular, we investigate this property for a finite dimensional symmetric Hopf algebra A over a field k . It turns out that if a module in a connected component of the stable Auslander-Reiten quiver associated to A has finitely generated Tate cohomology, then so does every module in that component. We apply some of these finite generation results on Tate cohomology to a non-trivial example. (Received August 12, 2013)