1001-16-348   **Margaret Beattie*** (`mbeattie@mta.ca`), Mathematics and Computer Science, Mount Allison University, 67 York St., Sackville, NB E4L 1E6, Canada. *Some results on co-Frobenius Hopf algebras.* Preliminary report.

Let H be a co-Frobenius Hopf algebra over a field k, i.e., H^{*rat} is nonzero, and let A be an H-comodule algebra with ring of coinvariants $B = A^{coH}$. We give some results on the structure of H and discuss how properties of A and B are related. (Received August 31, 2004)