1030-16-95 **Akira Masuoka*** (`akira@math.tsukuba.ac.jp`), Tsukuba, Ibaraki 305-8571, Japan. *Computing the second cohomology of Hopf algebras.* Preliminary report.

I will present such a non-standard method of computing the abelian second cohomology of Hopf algebras that derives information from the non-abelian second cohomology classifying cleft extensions. Especially, a quantum analogue of Whitehead's lemma for Lie-algebra cohomology will be proved. (Received July 23, 2007)