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A cohomological approach to liftings

The classification of various certain kinds of pointed Hopf algebras (and more generally Hopf Algebras with the Chevalley property) involves first describing a graded (over non-negative integers) Hopf algebra and then describing all its liftings, i.e., filtered Hopf algebras whose associated graded Hopf algebra is one of the fixed graded Hopf algebra we found in step one. In my talk I will present some ideas and recent results involved in a cohomological approach to computing liftings of a fixed graded Hopf algebra.