

In the talk we first review Hopf cyclic cohomology with coefficients and the recent development in this theory by the authors. Then we focus in the codimension one Hopf algebras and show that there are three Hopf algebras in this case : Connes Moscovici Hopf algebra \mathcal{H}_1 , the Schwartzian Hopf algebra and another Hopf algebra whose isotropy Hopf algebra is the enveloping algebra of sl_2 . We show that each of these Hopf algebra corresponds to a splitting of the Lie algebra of formal vector fields into two Lie algebras. At the end, we show that all these Hopf algebras have the same periodic Hopf cyclic cohomology.