
Hopf25

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Plenary talk, Forum E

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9h30-9h55

On the Hopf envelope of finite-dimensional bialgebras

It is well-known that the forgetful functor from the category of Hopf algebras to the category of bialgebras has a left adjoint that assigns to each bialgebra B its Hopf envelope $H(B)$ (attributed to Manin, 1988). The known construction of $H(B)$ is quite technical and the unit component of the adjunction at B , that is the bialgebra map $\eta_B : B \rightarrow H(B)$, is not surjective in general. The aim of this talk is to show that, when B is finite-dimensional, then $H(B)$ can be realized as an appropriate quotient bialgebra of B . Our proof relies on the fact that any such a bialgebra comes out to be an example of what we will call a n -Hopf algebra.

This talk is based on a joint work with C. Menini (Univ. Ferrara) and P. Saracco (ULB).