

# Reflection of a Hopf-algebra

Alexander Barvels

I will give a short review of the notions of a Hopf algebra and a braided Hopf algebra and the category of Yetter-Drinfel'd modules over such algebras. We show that the categories of Yetter-Drinfel'd modules over braided Hopf algebras  $A$  and  $B$  are isomorphic, if there is a non-degenerate Hopf pairing. We use this isomorphism to define the reflection of a Hopf-algebra.