

# A RECONSTRUCTION THEOREM FOR COQUASI-BIALGEBRAS WITH PREANTIPODE

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By a well-known theorem of Ulbrich, we can construct a Hopf algebra from any rigid monoidal category endowed with a monoidal functor to finite-dimensional vector spaces. In particular, this allows us to characterize Hopf algebras as those bialgebras whose category of finite-dimensional corepresentations is rigid. We will show that an analogue of Ulbrich's result can be proven in the framework of coquasi-bialgebras with preantipode (as introduced by Ardizzoni and Pavarin), supporting in this way the thesis that preantipodes are the natural counterpart of antipodes for coquasi-bialgebras. As an application, we will endow the finite dual coalgebra of a quasi-bialgebra with preantipode with the structure of a coquasi-bialgebra with preantipode.