

## Free resolution of universal unitary quantum groups

Hochschild cohomology is a classical invariant of algebras, which can be used in particular to distinguish objects. A possible way of computing the Hochschild cohomology is via (projective) resolutions. I will present a method to compute such a resolution and then the Hochschild cohomology for universal unitary quantum groups  $U_F^+$ ,  $F \in GL_n(\mathbb{C})$ . For that purpose we exhibit a free-glued product structure of  $U_F^+$ , and use the projective resolution of  $O_E^+$  given by J.Bichon (2013). This is a joint result with I. Baraquin, U. Franz, M. Gerhold and M. Tobolski.