

DESCRIBING PRESENTATIONS OF POINTED HOPF ALGEBRAS USING QUANTUM GROUPS

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Time：Fri, Nov. 6, 14:00-15:00

Venue: Room 106, SCMS

Abstract: In this talk I will introduce a novel approach to compute liftings of bosonizations of Nichols algebras of diagonal braided vector spaces of Cartan type which replaces heavy computations with structural maps related to quantum groups.

This provides an answer to a question posed by Andruskiewitsch and Schneider, who classified finite-dimensional complex pointed Hopf algebras over finite abelian groups whose order is coprime with 210. As application and in order to show not-to-technical examples, we recover with our method the liftings of type A_n computed by Andruskiewitsch and Schneider, of type B2 computed by Beattie, Dascalescu and Raianu, and of type B3 computed by us, for Drinfeld-Jimbo type braidings. Moreover, we give the explicit formulae for all liftings of type B_n and D_n, for n$\geqslant$2 (for the same type).

This talk is based on a joint work with Dirceu Bagio and Oscar Marquez.