Delvaux, L.; **Van Daele, A.**; **Wang, Shuanhong**
A note on the antipode for algebraic quantum groups. (English) Zbl 1252.16028
Can. Math. Bull. 55, No. 2, 260-270 (2012).

D. E. Radford [Am. J. Math. 98, 333-355 (1976; Zbl 0332.16007)] proved a formula for the fourth power of the antipode of a finite dimensional Hopf algebra H in terms of the inner actions determined by the distinguished grouplike elements of H and its dual H^* on H. *M. Beattie, D. Bulacu* and *B. Torrecillas* [J. Algebra 307, No. 1, 330-342 (2007; Zbl 1115.16016)] extended this formula to the case where H is a Hopf algebra with non-zero integrals. – In the paper under review, the formula is extended even more, to the case of regular multiplier Hopf algebras with integrals.

Reviewer: Sorin Dascalescu (Bucureşti)

MSC:

16T05	Hopf algebras and their applications
16T20	Ring-theoretic aspects of quantum groups
17B37	Quantum groups (quantized enveloping algebras) and related deformations
46L65	Quantizations, deformations for selfadjoint operator algebras

Keywords:

multiplier Hopf algebras; integrals; algebraic quantum groups; antipodes; grouplike elements

Full Text: DOI Link