

Delvaux, L.; Van Daele, A.

Algebraic quantum hypergroups. II: Constructions and examples. (English) Zbl 1215.43003
Int. J. Math. 22, No. 3, 407-434 (2011).

[Part I in *Adv. Math.* 226, No. 2, 1134–1167 (2011; [Zbl 1206.43004](#)).]

An algebraic quantum hypergroup is like an algebraic quantum group, but without the assumption that the coproduct is an algebra map. The main result of this paper gives a construction of certain algebraic quantum hypergroups from algebraic quantum groups (starting from an involutive algebraic quantum group one obtains an involutive algebraic quantum hypergroup) using conditional expectations associated to a regular group-like idempotent in the multiplier algebra of the dual of the original algebraic quantum group.

Reviewer: [Volodymyr Mazorchuk \(Uppsala\)](#)

MSC:

[43A62](#) Harmonic analysis on hypergroups

Cited in **2** Documents

Keywords:

algebraic quantum hypergroup; multiplier Hopf algebra; dual; coproduct; group-like projection

Full Text: [DOI](#) [arXiv](#)

References:

- [1] DOI: [10.1216/RMJ-2010-40-4-1149](#) · [Zbl 1226.16023](#) · doi:[10.1216/RMJ-2010-40-4-1149](#)
- [2] DOI: [10.1016/j.aim.2010.07.015](#) · [Zbl 1206.43004](#) · doi:[10.1016/j.aim.2010.07.015](#)
- [3] DOI: [10.1023/A:1011470032416](#) · [Zbl 0993.16024](#) · doi:[10.1023/A:1011470032416](#)
- [4] DOI: [10.1080/00927879908826688](#) · [Zbl 0951.16013](#) · doi:[10.1080/00927879908826688](#)
- [5] Kalyuzhnyi A. A., *Meth. Funct. Anal. Topol.* 7 pp 49–
- [6] DOI: [10.1016/0021-8693\(90\)90099-A](#) · [Zbl 0694.16008](#) · doi:[10.1016/0021-8693\(90\)90099-A](#)
- [7] DOI: [10.1017/CBO9780511613104](#) · doi:[10.1017/CBO9780511613104](#)
- [8] DOI: [10.1016/0034-4877\(96\)89291-3](#) · [Zbl 0882.16030](#) · doi:[10.1016/0034-4877\(96\)89291-3](#)
- [9] DOI: [10.1090/S0002-9947-1994-1220906-5](#) · doi:[10.1090/S0002-9947-1994-1220906-5](#)
- [10] DOI: [10.1006/aima.1998.1775](#) · [Zbl 0933.16043](#) · doi:[10.1006/aima.1998.1775](#)

This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.