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“Quantum function algebras as quantum enveloping algebras”

ABSTRACT

Inspired by a result in [Ga], we locate three integer forms of  $F_q[SL(n+1)]$  over  $k[q, q^{-1}]$ , with a presentation by generators and relations, which for  $q = 1$  specialize to  $U(\mathfrak{h})$ , where  $\mathfrak{h}$  is the Lie bialgebra of the Poisson Lie group dual to  $SL(n+1)$ .

In sight of this, we prove also two PBW-like theorems for  $F_q[SL(n+1)]$ , both related to the classical PBW theorem for  $U(\mathfrak{h})$ .

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