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Leonid Krop* (lkrop@condor.depaul.edu), Department of Mathematical Sciences, DePaul University, Chicago, IL 60614. *Representations of liftings of quantum linear spaces*. Preliminary report.

A finite-dimensional lifting H of a quantum linear space over a field k of characteristic 0 containing all roots of unity is generated by a finite abelian group and a set of skew-primitives $x_i, 1 \leq i \leq n$, subject to certain relations. A generator x_i is called *potent* if $x_i^m \neq 0$ for all m , and nilpotent, otherwise. Two generators x_i, x_j are linked if $x_i x_j - q_{ij} x_j x_i \neq 0$ for a certain scalar q_{ij} . Linkage gives rise to a simple graph Γ on the set $\{1, 2, \dots, n\}$. We say that Γ is *simply linked* if Γ is bipartite with at most one edge between any two vertices. A lifting H is said to be of *nilpotent type* if all x_i are nilpotent and potent, otherwise. H is called *unlinked* if the edge set of Γ is empty. In the talk we describe all simple H -modules for H of either potent unlinked type or simply linked nilpotent type. (Received March 07, 2008)