

1039-16-141

William Chin* (wchin@condor.depaul.edu), Dept. of Mathematical Sciences, DePaul University, Chicago, IL 60610, and **Leonid Krop**, Dept. of Mathematical Sciences, DePaul University, Chicago, IL 60614. *Representation theory of liftings of quantum planes.*

Quantum planes are among the simplest types of Hopf algebras constructed by the lifting method of N. Andruskiewitsch and H.-J. Schneider. They are finite-dimensional pointed Hopf algebras generated by an arbitrary abelian group of group-like elements together with a pair of skew primitive elements. The most well-known example of such a lifting is the Frobenius-Lusztig kernel associated to $\mathfrak{sl}(2)$. The representation theory of quantum planes breaks naturally into six cases depending depending on the nilpotence of the skew-primitive generators and their linkage. In each case we determine blocks, simples modules, projective modules, a presentation by quivers with relations, and representation type. (Received March 10, 2008)