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Carmen M. Wright* (carmen.m.wright@jsums.edu). *Some representation theory of $Sl_*(2, \mathcal{O}/\mathfrak{p}^2)$ where $*$ is the identity and $Sl_*(2, M_2(\mathcal{O}/\mathfrak{p}^2))$ where $*$ equals transpose.*

Let A be a ring with involution $*$. The “twisted” group $Sl_*(2, A)$, defined by Pantoja and Soto-Andrade (2003), is a non-commutative version of $SL(2, F)$ where F is a field. Let \mathcal{O} be a local ring with prime ideal \mathfrak{p} and finite residue field \mathcal{O}/\mathfrak{p} . We consider the two groups $Sl_*(2, \mathcal{O}/\mathfrak{p}^2)$ where $*$ is the identity and $Sl_*(2, M_2(\mathcal{O}/\mathfrak{p}^2))$ where $*$ equals transpose. Each group contains a normal abelian subgroup such that certain irreducible representations of the group are non-trivial on that subgroup. We find these representations using Clifford’s theorem. (Received September 25, 2012)