

1166-16-104

Jieru Zhu* (jieruzhu699@gmail.com). *Two boundary degenerate affine Hecke (Clifford) algebras for Lie super algebras $\mathfrak{gl}(m|n)$ and $\mathfrak{q}(n)$.*

The Arakawa-Suzuki functor assigns a module for the degenerate affine Hecke algebra to any arbitrary finite-dimensional module for the Lie algebra $\mathfrak{sl}_n(\mathbb{C})$, using eigenspace decomposition for the tensor Casimir element in $\mathfrak{sl}_n(\mathbb{C})$. Extending this work, Daugherty showed a similar construction for the two boundary degenerate affine Hecke algebra H_k and $\mathfrak{sl}_n(\mathbb{C})$. We further extend this result to Lie superalgebras $\mathfrak{gl}(m|n)$ and $\mathfrak{q}(n)$, whose centralizer algebra on a certain tensor space is given by a quotient of H_k in the case of $\mathfrak{gl}(m|n)$, and a Clifford enlargement H_k^{Cl} of H_k in the case of $\mathfrak{q}(n)$. In doing so, we have also classified all calibrated irreducible modules for the algebras H_k and H_k^{Cl} . (Received February 15, 2021)