Affine oriented Frobenius Brauer categories

Abstract:

To any Frobenius superalgebra $A$ we associate an oriented Frobenius Brauer category and an affine oriented Frobenius Brauer category. We define natural actions of these categories on categories of supermodules for general linear Lie superalgebras $\mathfrak{gl}_{m|n}(A)$ with entries in $A$. These actions generalize those on module categories for general linear Lie superalgebras and queer Lie superalgebras, which correspond to the cases where $A$ is the ground field and the two-dimensional Clifford superalgebra, respectively.