Naihuan Jing:

Twisted vertex representations and Hyperoctahedral groups

It is well-known that the vertex moonshine module/algebra consists of both untwisted and twisted pieces. We will use a similar construction to consider the space of all irreducible spin characters of wreath products of hyperoctahedral groups. Through a careful study of this space we will use vertex operators to construct all of the spin characters of hyperoctahedral groups in the context of twisted McKay correspondence, boson-fermion correspondence Schur's Q-functions and twisted toroidal Lie algebras. This is joint work with W. Wang.