

1063-46-131

**Hans Wenzl\*** ([hwenzl@ucsd.edu](mailto:hwenzl@ucsd.edu)), Dept of Math, UCSD, La Jolla, CA 92093. *A new  $q$ -Brauer algebra and subfactors.*

We construct subfactors which can be viewed as quantum analogs for the inclusion of the fixed point algebra under an outer  $SU(N)$  action contained in the fixed points of  $SO(N)$ , for  $N$  odd. While we can take the familiar Hecke algebras for  $SU(N)$  fixed points, we need a new  $q$ -deformation of Brauer's centralizer algebra for the  $SO(N)$  fixed points. Unlike in the classical case, we get finite index finite depth subfactors. These subfactors are expected to be related to twisted loop groups. (Received August 12, 2010)