

1086-05-1883

Monica Vazirani*, One Shields Ave, Davis, CA 95616, and **Kevin Walker**. *Representations of the affine BMW algebra*. Preliminary report.

The BMW algebra is a deformation of the Brauer algebra, and has the Hecke algebra of type A as a quotient. Its specializations play a role in types B, C, D akin to that of the symmetric group in Schur-Weyl duality. One can enlarge these algebras by a commutative subalgebra X to an affine, or annular, version. Unlike the affine Hecke algebra, the affine BMW algebra is not of finite rank as a right X -module, so induction functors are ill-behaved, and many of the classical Hecke-theoretic constructions of simple modules fail. However, the affine BMW algebra still has a nice class of X -semisimple, or calibrated, representations, that don't necessarily factor through the affine Hecke algebra. I will discuss Walker's TQFT-motivated 2-handle construction of the X -semisimple, or calibrated, representations of the affine BMW algebra. (Received September 24, 2012)