## 1131-57-12 Charles Frohman\* (charles-frohman@uiowa.edu), Joanna Kania-Bartoszynska and Thang Le. Representations of the Kauffman Bracket Skein Algebra at Roots of Unity.

Let  $\zeta$  be an *n*th root of unity, and *F* be a finite type oriented surface. The Kauffman bracket skein algebra  $K_{\zeta}(F)$  is an algebra over the complex numbers with basis the simple diagrams on *F* and multiplication given by stacking and resolving crossings using the Kauffman bracket skein relations. We prove a conjecture of Bonahon and Wong about irreducible representations of  $K_{\zeta}(F)$ .

An irreducible representation  $\rho : K_{\zeta}(F) \to M_N(\mathbb{C})$  is a surjective homomorphism to a matrix algebra. We prove generically, the irreducible representations of  $K_{\zeta}(F)$  are determined by their central characters, and those generic representations all have the same dimension, which is the rank of  $K_{\zeta}(F)$  as a module over its center. (Received May 01, 2017)