1132-57-12 **Charles Frohman*** (`charles-frohman@uiowa.edu`), **Joanna Kania-Bartoszynska** and **Thang Le**. *Representation Theory of the Kauffman Bracket Skein algebra.*

Let ζ be an nth 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 represetations 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.

The heart of the proof is a unicity theorem for representations of a prime algebra over an algebraically closed field, that has finite rank over its center. (Received May 01, 2017)