

1121-55-271

Nelson Abdiel Colon*, nel.abdiel@gmail.com, and **Charles Frohman**. *Frobenius Algebras
Derived from the Kauffman Bracket Skein Algebra.*

If the variable in the Kauffman bracket A is set equal to $e^{\pi i N}$ where N is an odd integer, then the Kauffman bracket skein algebra of a compact oriented surface F , $K_N(F)$ is a ring extension of $\chi(F)$ the $SL_2(C)$ -characters of the fundamental group of F . We can derive an algebra from $K_N(F)$ by either passing to the field of fractions of $\chi(F)$, or specializing at a place $\phi : \chi(F) \rightarrow C$. In either case, the action of $KN(F)$ on itself by left multiplication leads to a trace on $K_N(F)$ taking values in the base field. We work examples to show that the fields constructed this way are usually Frobenius algebras. (Received July 19, 2016)