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Nelson Colon, Department Of Mathematics, The University of Iowa, Iowa city, IA 52242, and
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University of Iowa, Iowa City, IA 52242. *Frobenius Algebras Derived from the Kauffman Bracket
Skein Algebra*. Preliminary report.

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 $SL_2\mathbb{C}$ -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 $\phi : \chi(F) \rightarrow \mathbb{C}$. In either case, the action of $K_N(F)$ 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 September 02, 2014)