

ABSTRACT

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The quantum trace map, an algebra homomorphism from the Kauffman bracket skein algebra of a surface to a quantum torus associated to an ideal triangulation of the surface (the quantum Teichmüller space), was constructed by Bonahon and Wong and proved to be an important tool in the study of the Kauffman bracket skein algebra. We show that the SL_n skein algebra of a surface also has a quantum trace map, which for $n = 2$ is the Bonahon-Wong quantum trace map. The SL_n quantum trace map is constructed via the splitting homomorphism for the stated SL_n skein algebra, developed in joint work with A. Sikora.