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*Quasifuchsian surfaces in knot complements.*

When a knot or link diagram admits certain combinatorial properties, there will always be an embedded essential surface in the corresponding link complement. This surface is called a state surface, for an appropriate Kauffman state. By work of Bonahon and Thurston, every embedded essential surface in a hyperbolic 3-manifold is exactly one of accidental, a (semi) fiber, or quasifuchsian. We show that the essential state surface will never be accidental. It will be a fiber if and only if the diagram satisfies a simple combinatorial property, and otherwise quasifuchsian. In several instances, we show that the geometric type of the surfaces is completely determined by certain coefficients of the colored Jones polynomial. This is joint work with David Futer and Efstratia Kalfagianni. (Received August 22, 2012)