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Joshua Sussan* (sussan@math.berkeley.edu), University of California Berkeley, 970 Evans Hall #3840, Berkeley, CA 94720. *Colored tangle invariants and quantum $sl(2)$ categorification.*

We review the categorification of tensor products of the natural representation for quantum $sl(2)$ and its extension to a tangle invariant. A categorification of tensor products of arbitrary finite dimensional, irreducible representations was given by Frenkel, Khovanov, and Stroppel. We show how to use these results to get a categorification of the colored Jones polynomial. This is joint work with Igor Frenkel and Catharina Stroppel. (Received September 22, 2009)