1108-57-173 **Charles Frohman*** (`charles-frohman@uiowa.edu`), Department of Mathematics, The University of Iowa, Iowa City, IA 52242, and **Sanjay Kumar**. *Tangle Functors coming from $U_q(sl_2)$ at roots of unity.*

The unreduced quantum group $U_q(sl_2)$ has a large center which is a finite extension of the coordinate ring of the algebraic group that is Poisson dual to $SL_2\mathbb{C}$. The algebra $U_q(sl_2)$ is not quasitriangular in the strict sense, as instead of a universal R-matrix in $U_q(sl_2) \otimes U_q(sl_2)$ there is a universal R-automorphism, $R : U_q(sl_2) \otimes U_q(sl_2) \to U_q(sl_2) \otimes U_q(sl_2)$, that was developed by Reshetikhin and Reshetikhin and Kashaev in papers that appeared in 1994 and 2005. We give a careful description of the basic data for a tangle functor based on this operator, where the colors come from representations parametrized by elements of the Poisson dual of $SL_2\mathbb{C}$ and explore the properties of the functor. (Received January 10, 2015)