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University of Wisconsin, 480 Lincoln Dr., Madison, WI 53706. *Dual polar graphs and the quantum  
algebra  $U_q(sl_2)$* . Preliminary report.

Let  $\Gamma = (X, R)$  denote a dual polar graph. Let  $A$  denote the adjacency matrix of  $\Gamma$ . Fix a vertex  $x \in X$  and let  $A^* = A^*(x)$  denote the dual adjacency matrix of  $\Gamma$  with respect to  $x$ . Let  $T = T(x)$  denote the subalgebra of  $Mat_X(\mathbb{C})$  generated by  $A, A^*$ . Let  $V = \mathbb{C}^X$  denote the standard  $T$ -module. In this talk we display a  $U_q(sl_2)$ -module structure on  $V$  and discuss how this is related to the actions of  $A, A^*$ . (Received February 15, 2010)