1155-81-535 **David E. V. Rose*** (davidrose@unc.edu) and **Logan Tatham**. *On the quantum type C spider.* Preliminary report.

Following Kuperberg, a spider is a generators-and-relations description of the category of representations of a quantum group, given in terms of trivalent graphs called webs. It is an open problem (outside of type A and rank 2) to find such a description for quantum groups associated to simple complex Lie algebras. We will discuss work that provides a conjectural formulation of the type C spider in rank 3. Further, we prove that our construction shares a number of properties with the category of finite-dimensional representations of quantum sp(6); in particular, we provide a purely combinatorial/diagrammatic formulation for the quantum sp(6) link invariant. Time permitting, we'll also discuss the general sp(2n) case, and implications for categorification. (Received January 21, 2020)