

1135-VV-3105 **Andres N. Mejia*** (am8248@bard.edu), 65-36 Metropolitan Avenue, New York, NY 11379. *On The Structure of The C_2 Spider.*

The spiders of Kuperberg provide a diagrammatic encoding the combinatorics of the representation theory of $U_q(\mathfrak{g})$, where \mathfrak{g} is a Lie algebra. We restrict our attention to the C_2 spider, which reflects the representation category of $\mathfrak{sp}(4)$. A description of this combinatorial object is given in terms of generators and relations for diagrams. We extend results known for other spiders and give a more explicit description of these diagrammatic web spaces. Moreover, triple clasped spaces are explored when q is a root of unity, recovering aspects of a closely related modular tensor category. (Received September 26, 2017)