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Wade Bloomquist*, bloomquist@math.ucsb.edu, and **Zhengan Wang**. *Spiders and Asymptotic Faithfulness*.

Quantum representations of mapping class groups arise from (2+1) dimensional TQFTs, and thus modular tensor categories using a construction of Turaev. Given a Lie algebra and a natural number called the level, there exists a modular tensor category and thus a mapping class group representation. Using techniques based on the spiders of Kuperberg for rank 2 Lie algebras we explore properties of these representations as the level tends towards infinity. These spiders exploit the graphical calculus of the modular tensor category in a way that generalizes the Temperley-Lieb algebra in the rank 1 case. (Received September 25, 2017)