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Joshua R Edge* (edgej@denison.edu). *Spin models for singly-generated Yang-Baxter planar algebras.*

Spin models for planar algebras are useful tools in building new and interesting fiber functors, which can be used to create new Hopf algebras. In this talk, we discuss the classification of all spin models for singly-generated Yang-Baxter planar algebras in terms of certain highly symmetric graphs. Using Liu's classification of singly-generated Yang-Baxter planar algebras, this classifies all spin models for the Jones polynomial, the Bisch-Jones planar algebras, and the Kauffman polynomial. This simplifies and clarifies Jaeger's classification of spin models for the Kauffman polynomial. We also explain the numerous exceptional cases in Jaeger's classification by demonstrating a new, discrete two-parameter family of spin models for the Bisch-Jones planar algebras. (Received August 28, 2020)