

Temperley-Lieb and related diagram algebras

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Abstract: The Temperley-Lieb algebra arose in a connection to the Potts model in statistical mechanics. It later reappeared in the seminal work of Vaughan Jones on subfactors of von Neumann algebras which enabled fantastic connections to knot theory and low dimensional topology. This talk will be a survey of the Temperley-Lieb algebras and related algebras such as the Brauer algebra, partition algebra and some generalizations. Emphasis will be on the combinatorial and diagrammatic realizations of these algebras.