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Title: Quantum 6j-symbol and alpha-induction

Abstract: We have shown before that generalized quantum 6j-symbols appearing in the Turaev-Viro type TQFT based on triangulations of 3-manifolds, bi-unitary connections producing subfactors of finite depth, and 4-tensors appearing in recent studies of two-dimensional topological order are all the same. Alpha-induction is a tensor functor giving a fusion category from a Frobenius algebra in a braided fusion category, which has been studied in the context of extensions of chiral conformal field theory. We present recent advances on alpha-induction for generalized quantum 6j-symbols in the context of operator algebras with emphasis on the role of commutativity of the Frobenius algebra.