INTERPOLATION CATEGORIES FOR CONFORMAL EMBEDDINGS

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We give a diagrammatic description of the categories of modules coming from the conformal inclusions (sl(N),N) < (so(N^2-1),1). A small variant on this construction has uniform generators and relations which are rational functions in $q = e^{2 \pi i/4N}$, which allows us to construct a new continuous family of tensor categories at non-integer level which interpolate between these categories. This is the second example of such an interpolation category for families of conformal inclusions after Zhengwei Liu's interpolation categories (sl(N), N + 2) < (sl(N(N+1)/2),1) which he constructed using his classification Yang-Baxter planar algebras. Our approach is different from Liu's, we build a two-color skein theory, with one strand coming from X the image of defining representation of $\mathfrak{sl}_N$ and the other strand coming from an invertible object g in the category of local modules, and trivalent vertex coming from a map $X \otimes X^* \longrightarrow g$.