1134-46-416 **Hans Wenzl***, Dept of Mathematics, UC San Diego, La Jolla, CA. *On Charge Conjugation Modular Invariants.* Preliminary report.

It is known that every algebra object of a modular tensor category produces a modular invariant, i.e. basically a matrix Z with non-negative integer coefficients which commutes with the action of the modular group. This played a crucial role for the classification of algebras/module categories for the $SU(3)$ fusion categories. However, for $SU(N)$ with $N > 3$ there are still many unsolved questions even for the conjugation modular invariants Z with $z_{\lambda\mu} = \delta_{\bar{\lambda}\mu}$, where $\bar{\lambda}$ is the label for the dual representation of λ.

We relate this problem to results by the author about constructing subfactors related to analogs of the embedding of $SO(N) \subset SU(N)$ for the fusion category $SU(N)_k$ for even level k. This also yields formulas for the rather complicated indices of the associated subfactors, and explicit descriptions of the associated algebras. (Received September 12, 2017)