

1172-18-192

Andrew Schopieray* (schopier@ualberta.ca). *Nondegenerate extensions of near-group braided fusion categories.*

At the beginning of the current millennium, it was conjectured that all braided fusion categories can be embedded into nondegenerately braided fusion categories of particularly small dimension. Unfortunately, this “minimal modular extension conjecture” is false, and the smallest counterexample is a very small, familiar category of rank 5 and dimension 8. Using this counterexample as motivation, we will demonstrate that roughly half of the Tambara-Yamagami braided fusion categories satisfy the minimal modular extension conjecture. This provides a complete classification of braided near-group fusion categories which satisfy the minimal modular extension conjecture as well. We also demonstrate how these arguments can be extrapolated to the non-symmetrically braided representation categories of extraspecial p -groups for primes greater than 2. (Received August 27, 2021)