

1106-46-903

David Penneys*, 520 Portola Plaza, Math Sciences Building 6363, UCLA Mathematics Department, Los Angeles, CA 90095-1555. *Classifying small index subfactors.*

We classify subfactors by three invariants of increasing complexity: the index, the principal graph, and the standard invariant. The standard invariant is a unitary 2-category which generalizes the representation category of a (quantum) group, and thus we think of subfactors as objects which encode quantum symmetries. In one sense, subfactors of small index are the simplest examples of subfactors, and we have a complete classification of their standard invariants to index 5. I will discuss the ongoing subfactor classification program and the search for exotic examples. (Received September 08, 2014)