

1145-18-1118

Pinhas Grossman, Scott Morrison, David Penneys, Emily Peters and Noah Snyder*
(nsnyder@gmail.com). *Morita equivalence classes of small index subfactors.*

Most known fusion categories can be constructed from quantum groups and finite groups. The main exceptional examples come from the classification of small index subfactors: the Haagerup, Asaeda-Haagerup, and Extended Haagerup fusion categories. Izumi later put the Haagerup examples into a larger framework of Izumi quadratic categories, and we'd like to understand if there's anything that doesn't come from groups, quantum groups or Izumi categories. It is natural to ask what other fusion categories are Morita equivalent to the exceptionals: on the one hand we may find something new which is easier to understand showing that the original fusion category is less exceptional than we thought, and on the other hand we might find additional exceptional examples. In joint work with Grossman and Grossman-Izumi we found all categories Morita equivalent to Asaeda-Haagerup and found that some of them are Izumi categories. In joint work with Grossman, Morrison, Penneys, Peters, we also answered this question for Extended Haagerup finding two new exceptionals. In order to construct these two new examples we use a new technique of "Graph planar algebra embeddings for module categories" which Dave Penneys will talk about in his talk. (Received September 19, 2018)