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Geoffrey – Mason* (gem@ucsc.edu). *New Families of Quasihopf algebras and tensor Categories.*

The twisted double of a finite group is a construction that has been very influential in both orbifold conformal field theory and Hopf algebra theory. This is mainly because such objects have a module category that is modular. In this talk we will present a generalization of the twisted quantum double whose module category is also modular, and explain the group-theoretic background, which is cohomological in nature. We describe a number of examples, which give rise to new classes of quasihopf algebras and modular tensor categories. (Joint work with Siu-Hung Ng.) (Received September 21, 2017)