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**Terry Gannon\*** (tgannon@math.ualberta.ca), Math Department, University of Alberta,  
Edmonton, Alberta T6G 2G1, Canada. *Subfactor-like realisations of nonunitary fusion categories.*

Fusion categories are the categorification of finite-dimensional reps of finite groups, and correspond to categories of bimodules (or endomorphisms) of subfactors, as well as modules of rational vertex operator algebras (in the latter case the categories are in fact the much richer modular tensor categories). Unitary fusion categories can always be realised by endomorphisms on some  $C^*$ -algebra. These realisations are very convenient, e.g. for constructing and classifying those categories, and also for determining the corresponding modular tensor category. Using these methods we find for example many modular tensor categories which don't correspond to any known VOA — these VOAs probably exist, they just haven't been constructed yet. All this sounds like abstract nonsense, but it tells where to look for new classes of VOAs. Unfortunately those methods until now have been inherently unitary, while most fusion categories are nonunitary. In my talk however, I will explain how the endomorphism methods can be extended to nonunitary fusion categories. My emphasis will be on the underlying ideas, rather than the technical details. This is joint work with David Evans. (Received July 29, 2014)