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James Tener* (jtener@math.ucsb.edu) and **Zhenghan Wang**. *Conformal field theories for modular tensor categories with small rank.*

The reconstruction problem for conformal field theories asks “What extra data is required to reconstruct a conformal field theory from a modular tensor category (MTC)?” Related conjectures of Gannon and Höhn address the existence and finiteness of conformal field theories corresponding to a given MTC. In this talk I will discuss new and old results regarding a class of conformal field theories for which we can prove existence, uniqueness, and finiteness results when the associated MTC has small rank. (Received January 18, 2018)