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Noah Snyder* (nsnyder@gmail.com) and **Scott Morrison**. *Small fusion categories and subfactors I*. Preliminary report.

One goal in studying fusion categories is to classify all “small fusion categories.” This problem comes in many flavors depending on what definition of “small” you use. Unitary fusion categories are intimately related to finite depth subfactors. Certain definitions of “size” for fusion categories match up with already studied questions in Subfactor theory. The end goal of these talks is to try to answer the following question “What is the smallest possible dimension bigger than 2 for an object in a unitary fusion category.” (Received August 24, 2009)