1133-53-251 **Samuel T Lisi*** (stlisi@olemiss.edu). *On fillings of $M \times T^2$.* Preliminary report.

An important question in contact topology is to classify the fillings of a contact manifold. Worded differently, the question is, given a contact manifold, which symplectic manifolds can it bound? The question comes in different flavors, depending on the precise bounding condition. There are a large number of important results in dimension 3, but much less is known in dimensions 5 and higher.

We will discuss an interesting class of five dimensional examples. Bourgeois constructed a family of contact structures on $M \times T^2$ if M is contact, using Giroux's open book decomposition. We will see that these are very sensitive to the page of the open book, but less so to the monodromy. We will also see that many of these are weakly fillable, by a family of constructions. This is partially joint work with Marinkovic and Niederkrüger. (Received July 27, 2017)