1117-57-488   **Andy Wand*** (`andy.wand@glasgow.ac.uk`). *Tight, non-fillable contact structures on 3-manifolds.*

The modern development of contact geometry in 3 dimensions has seen several (due to Giroux, Wendl, Latschev and Wendl, Hutchings, and others) invariants of contact structures meant in some sense to measure non-(Stein/symplectic)-fillability of the structure. Time permitting, we will discuss two new approaches, which rely on Giroux's theory of open book decompositions: the first a more topological construction generalizing a characterization of tightness in terms of open book decompostions, the second (in joint work with Kutluhan, Matic, and Van Horn-Morris) a refinement of the Heegaard-Floer contact class, inspired by the 'algebraic torsion' of Latschev and Wendl, and Hutchings. (Received January 19, 2016)