**WILL RUSHWORTH**, McMaster University

*Ascent concordance*

Let $\Sigma_g$ be a closed orientable surface of genus $g$, and $L_1 \hookrightarrow \Sigma_{g_1} \times I$ and $L_2 \hookrightarrow \Sigma_{g_2} \times I$ links in thickenings of $\Sigma_{g_1}$ and $\Sigma_{g_2}$. A concordance between $L_1$ and $L_2$ is a pair $(S, M)$, where $M$ is a compact orientable 3-manifold with $\partial M = \Sigma_{g_1} \sqcup \Sigma_{g_2}$, and $S$ a disjoint union of annuli properly embedded in $M \times I$ such that each annulus has a boundary component in both $L_1$ and $L_2$.

Given a concordance between $L_1$ and $L_2$, how complex need the 3-manifold $M$ be? We show that there exist representatives of the same concordance class that are not concordant if one restricts to 3-manifolds that are Morse-theoretically simple. We exhibit one infinite family of such links that are detected by an elementary method, and another infinite family that require an augmented version of Khovanov homology to detect. These links provide counterexamples to an analogue of the Slice-Ribbon Conjecture.