WILL RUSHWORTH, McMaster

An application of link parity

Joint work with Hans Boden. Let D be a link diagram on an orientable surface Σ. A *parity* is a designation of the crossings of D as either *even* or *odd*, satisfying certain axioms.

Parity is a very useful tool in the study of knots in 3-manifolds of the form $\Sigma \times I$ (and related theories), but extending such methods to links of more than one component has proven to be difficult. We describe a new parity for a class of links in $\Sigma \times I$, and use it to prove a minimality result for link diagrams, generalizing a result of Manturov in the case of knot diagrams.