

The surgery unlinking number of Legendrian links

The surgery unknotting number of a Legendrian knot is defined as the minimal number of particular oriented surgeries that are required to convert the knot into a Legendrian unknot. In the paper *The Surgery Unknotting Number of Legendrian Links* by Boranda, Traynor and Yan it was shown that, for numerous non-slice knots, the unknotting number is equal to twice the 4-ball genus of the underlying smooth knot.

In our summer project, we will generalize the surgery unknotting number to an unlinking number, namely we need only reach by surgeries a Legendrian unlink rather than an unknot. We attempt to see if for slice knots, the unlinking number is always less than the unknotting number and the surgeries produce a surface with 4-ball genus equal to zero.