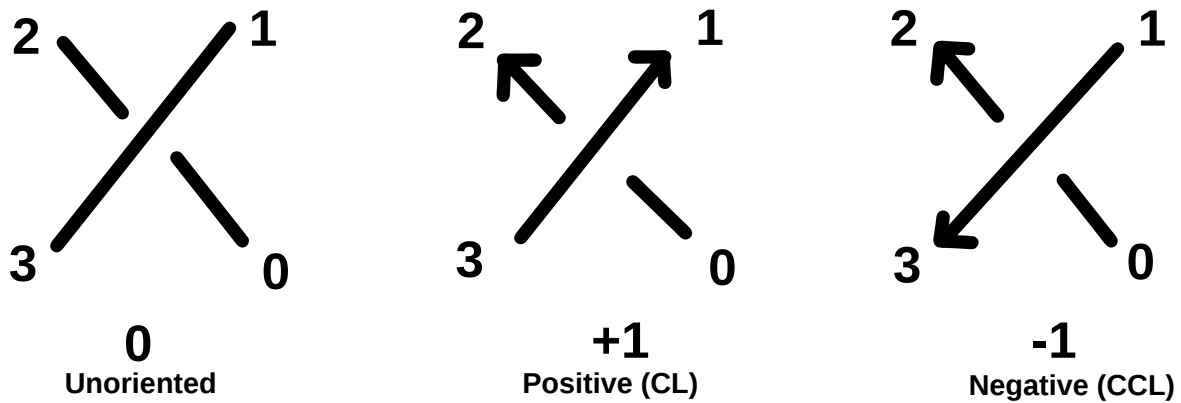
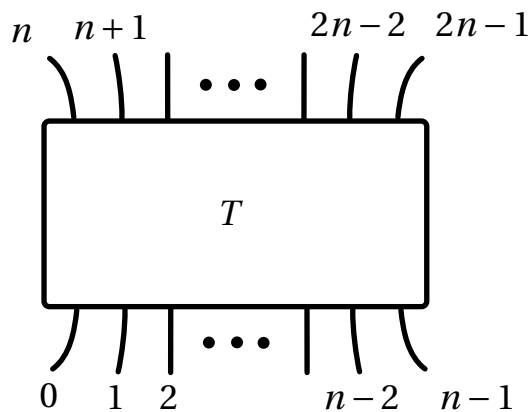


## 1 Conventions for crossings



## 2 Conventions for tangles

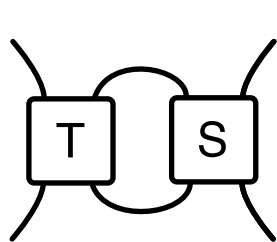
A tangle  $T$  is a rectangular piece of a projection with  $2n$  incoming strands, where these strands are numbered as shown.



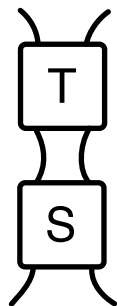
Conventions for operations and rational tangles follow

<http://homepages.math.uic.edu/~kauffman/VegasAMS.pdf>

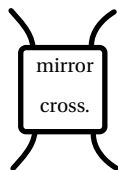
and are shown on the next page.



$T + S$



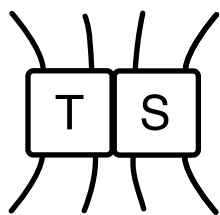
$T * S$



$-T$



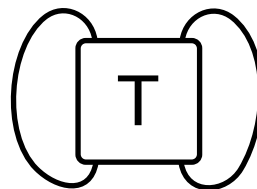
$\frac{1}{T}$



$T | S$



Numerator closure



Denominator closure

### Basic rational tangles



$-2$



$-1$



$0$



$1$



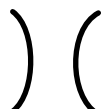
$2$



$-\frac{1}{2}$



$-\frac{1}{1}$



$\infty$



$\frac{1}{1}$



$\frac{1}{2}$