

What Are w-Knots?

April-21-09
2:31 PM

Recall knots = $PA \langle X \mid \mathcal{R} = \mathcal{R}, * = * \rangle_{\text{ogless}}$ and
 trivalent tangles = $PA \langle X, Y \mid \mathcal{R} = \mathcal{R}, * = *, \nabla = \nabla \rangle \Big| \underbrace{\lambda \rightarrow \lambda'}_{\text{operations}}$

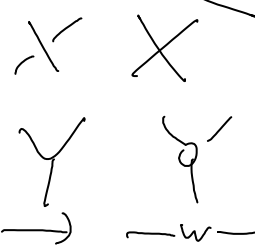
Likewise let
 w-trivalent tangles

4D interpretation

select
 corresponding
 pics.

PA

generators



relations

R 2 3

VR 1 2 3

M

OC

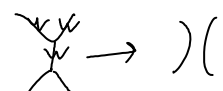
$\nabla = \nabla = \nabla$

$\lambda = \lambda \neq \lambda'$

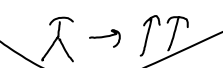
$\frac{w}{1} = \frac{w}{w} \quad \frac{w}{1} = \frac{w}{w}$

operations

annulus unzip:



Disk unzip



Challenge: Do the Reidemeister

Red