Where's the MVA hiding?

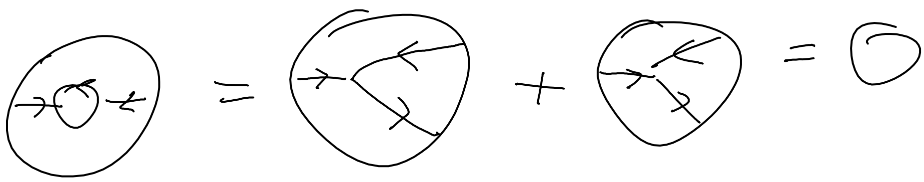
July-03-10
10:23 AM

Problem Find a functional out of $\mathcal{A}^w(\bigcirc_n)$ that will detect the MVA.

What was the functional that Naot found at Cattaneo etc.?

Naot: http://front.math.ucdavis.edu/0310.5366

On page 9: Wheels are 0 in $\mathcal{A}^w(\bigcirc)$:



...So the first question is, where's A hiding?

$\Longrightarrow$ Not in $\mathcal{A}^w(\bigcirc)$, but in $\mathcal{A}^w(\uparrow)$!

.... So AKT in the w case must be reformulated.

In summary for knots:

iso at wheel level.

mostly vanishing.

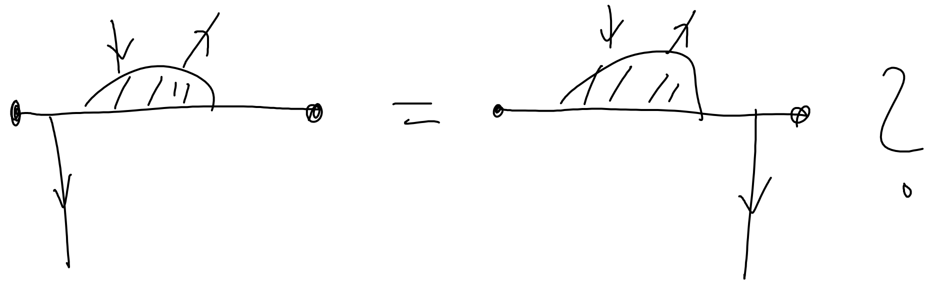
$$\begin{tikzcd} \mathcal{A}(\uparrow) \arrow[r, "\alpha"] \arrow[d, equal, "\wr"'] & \mathcal{A}^w(\uparrow) \arrow[d] \\ \mathcal{A}(\bigcirc) \arrow[r, "\alpha"] & \mathcal{A}^w(\bigcirc) = (\text{only framings}) \end{tikzcd}$$

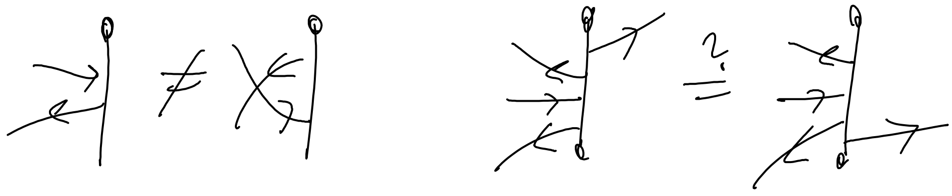
mostly vanishing

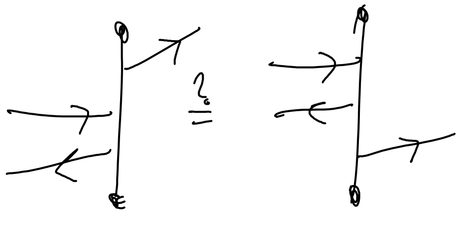
<u>Question</u> Is there a well-defined map

$$\mathcal{A}^u(\bigcirc_n) \longrightarrow \mathcal{A}^w(\uparrow_n) \;?$$

<u>Question</u> Is always,







<u>Question</u> $\mathcal{A}^w(\uparrow) \cong \mathcal{A}^w(\uparrow)$. Is there a nice model for $\mathcal{A}^w(\uparrow_n)$ and/or $\mathcal{A}^w(\uparrow_n)$?

The MVA of the closure of a pure braid may be non-trivial, yet the obvious $\mathcal{A}^{hor}(\uparrow_n) \to \mathcal{A}(\uparrow_n)$ is trivial. So the MVA cannot come from there.