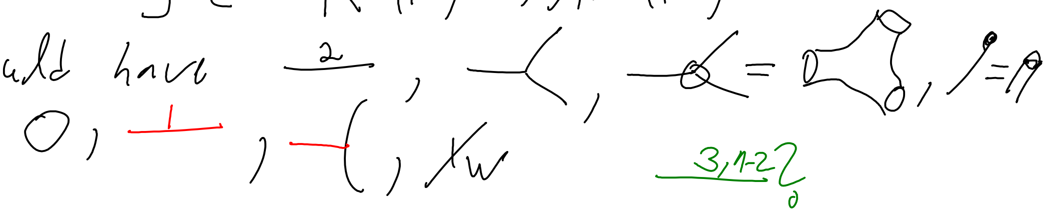
Alexander Failures

August-03-10
8:36 AM

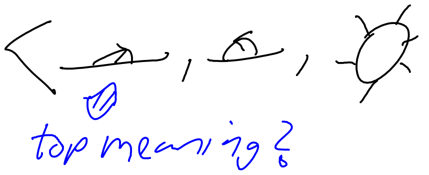
**We know:** $\exists\, Z^w : K^w(\Gamma) \to \mathcal{A}^w(\Gamma)$

$\Gamma$ could have




$\Gamma = /$ , $Z^w$ is the Alexander poly.

$\mathcal{A}^w(/) =$ Comm. alg. $\langle$




$= w_k;\ k \geq 2 \rangle$

$k=1 \Leftrightarrow$

1. I still don't understand $\mathcal{A}^w(\bigcirc_n)$, not even $\mathcal{A}^{wA}(\bigcirc_n)$. For $n \geq 2$; start w/ $\mathcal{A}^{wA}(/\bigcirc)$.
2. I am not sure if $pA$ is the "canonical" extension of the MVA to w-links.
3. I don't understand the weight system of $pA$.
4. Needless to say, I still don't have an Alexander-based Algebraic Knot Theory.

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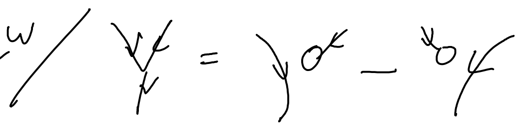
$\mathcal{A}^{wA} := \mathcal{A}^w /$



"Archibald's relation"

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It would be nice to show that $Z^{wA}/\mathcal{A}^{wA}$ contains the Cimasoni–Turaev Theory.

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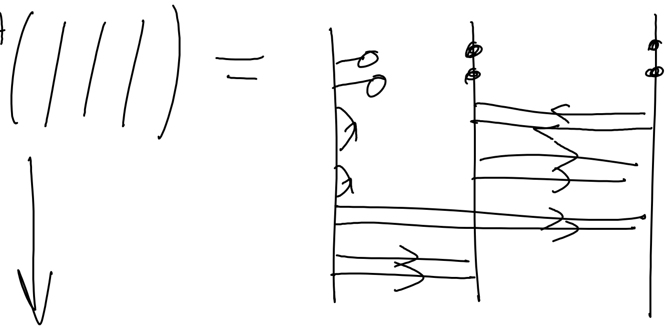
$\mathcal{A}^{wA}(||||) =$



$\mathcal{A}^{WA}(O_n) = \text{trivial}$ ?