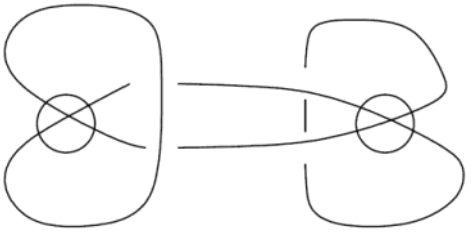
A Kishino Braid

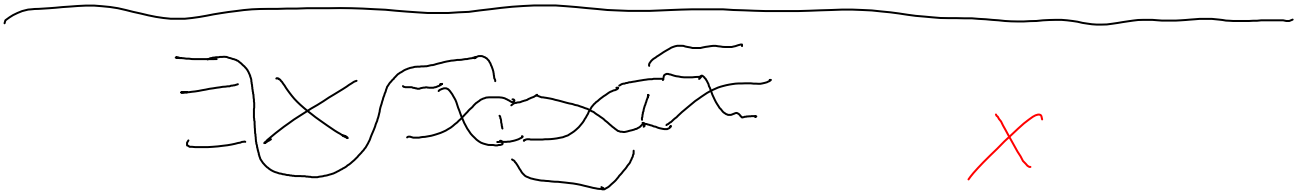
December-05-08
1:38 PM

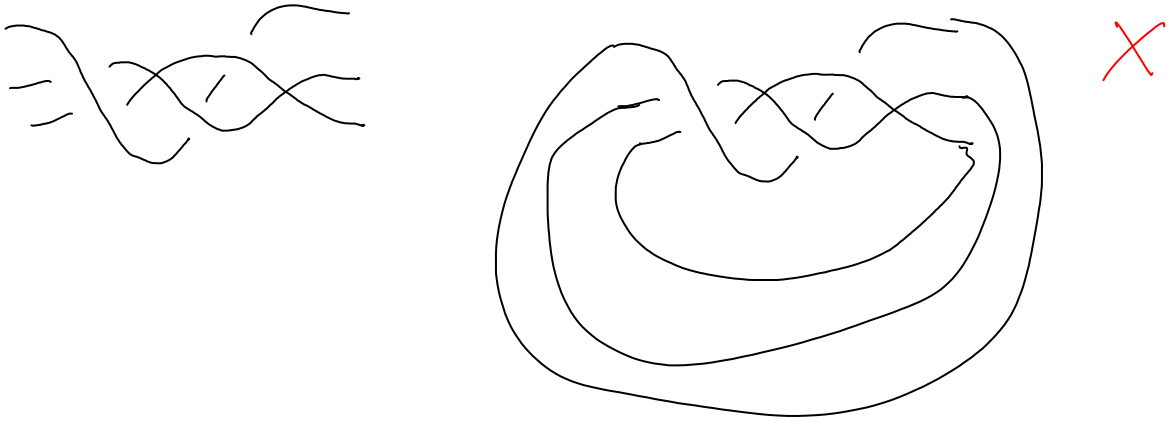
Image from
Title: Virtual knots undetected by 1 and 2-strand bracket polynomials
Authors: H. A. Dye

Pasted from <http://front.math.ucdavis.edu/0402.5308>



Kishino's Knot





Non trivial

Oops, with $B=$  we seem to have

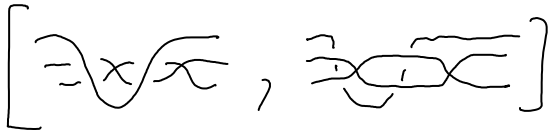
$B^2=I$, yet $B\neq I$.

$Q^2\ni(B-I)(B-I)=B^2-2B+I=2I-2B$, except B has a non-trivial skeleton.

$\Rightarrow B-I=0$ in projvB

Ok, Questions:

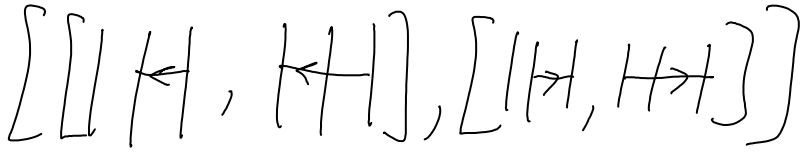
1. Prove that



is non-trivial in vB.

Will it work using the Jones polynomial?

2, Prove that

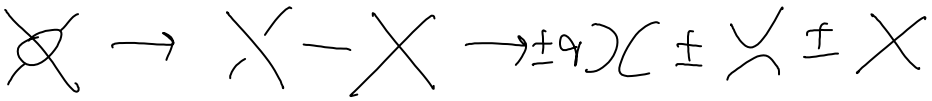


is non-trivial in $\mathcal{A}_3^v$

3. Aside Is the Kauffman bracket of a virtual knot of finite type? What is its weight system?

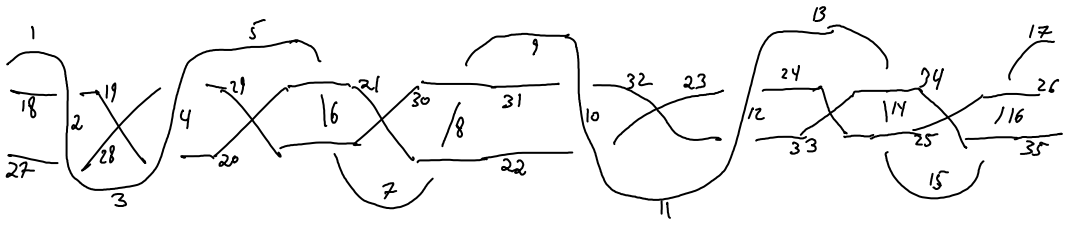
"of" means "dominated by".

— It is not obviously of finite type:



are there are no cancellations at $q=1$.

Likewise, what's the relationship between the Jones polynomial and the Kauffman bracket for v-knots?



Just for comparison, a trivial braid: