Monday-4 AKT on 140127: Weight systems

January-27-14 8:45 AM

Hw2 due! Hw3 on web! class photo on web!

1. $V(\nearrow) = V(\nearrow) - V(\nearrow)$, V is "type n" if $V(\underbrace{X \cdots X}_{>n}) \equiv 0$

2. $q^{-1} J(\nearrow) - q J(\nearrow) = (q^{1/2} - q^{-1/2}) J(\nearrow)$.
With $q = e^{\alpha}$ $J(K) = \sum v_n(K) x^k$ v_n is of type n "a f.t. series".

3. HOMFLYPT:
$$aH(\nearrow) - a^{-1} H(\nearrow) = z H(\nearrow)$$

4. Conway $C(\nearrow) - C(\nearrow) = z C(\nearrow)$, $C(O^k) = \delta_{k1}$

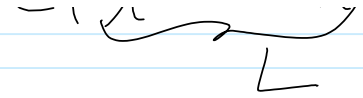
.... functionals on chord diagrams.

..... FI & YT. done fine

.... The w.s. of Conway.

claim
$$C(\underbrace{X \; X \cdots X}_{k}) = z^k [C(\;)(\;)\cdots) + \text{h.o.}]$$

$$\text{Coeff}(z^n, C(\underbrace{X \cdots X}_{n})) = \text{constant term of } C(\underbrace{)(\cdots)(}_{L})$$



$$= \begin{cases} 1 & L \text{ is a knot} \\ 0 & L \text{ has more than 1 comp.} \end{cases}$$