

$$f(K \# L) = f(K) f(L)$$

$$f(K \sqcup L) = f(K) f(L) \cdot (-A^2 + A^{-2})$$

$$f(\boxed{K} \circlearrowright) = f(K \# H_+) = -A^2(1+A^8) f(K)$$

\bar{K} : switch all crossings
 $f(\bar{K})(A) = f(K)(A^{-1})$

K^* : reverse all orientations
 $f(K^*) = f(K)$

$$U_n = \underbrace{\bigcirc \dots \bigcirc}_n$$

$$f(U_n) = (-A^2 + A^{-2})^{n-1}$$

$$H_+ = \bigcirc \circlearrowright$$

$$f(H_+) = -A^2(1+A^8)$$

$$H_- = \bigcirc \circlearrowleft$$

$$f(H_-) = -A^2(1+A^8)$$

$$T_+ = \bigcirc \circlearrowright \circlearrowright$$

$$f(T_+) = A^{-4} + A^{-12} - A^{-16}$$

$$T_- = \bigcirc \circlearrowleft \circlearrowleft$$

$$f(T_-) = A^4 + A^{12} - A^{16}$$

$$B_{2n} = \text{rectangle with } 2n \text{ crossings}$$

$$f(B_{2n}) = -A^2 \left(A^{8n} + \frac{A^{8n-4} + 1}{A^4 + 1} \right)$$

$$4_1 = \bigcirc \circlearrowright \circlearrowright \circlearrowright$$

$$f(4_1) = A^{-8} - A^{-4} + 1 - A^4 + A^8 = \frac{A^{10} + A^{-10}}{A^2 + A^{-2}}$$

$$C_{2n} = \text{rectangle with } 2n \text{ crossings and a crossing on the top strand}$$

$$f(C_{2n}) = \frac{A^4(A^8 + 1)}{A^4 + 1} (1 - A^{-8n}) + A^{-8n}$$

$$N_n = \text{circle with } n \text{ rings}$$

$$f(N_n) = (-A^2(1+A^8))^n$$

$$C_n = \underbrace{\bigcirc \circlearrowright \bigcirc \circlearrowright \bigcirc \circlearrowright}_n$$

$$f(C_n) = (-A^2(1+A^8))^{n-1}$$