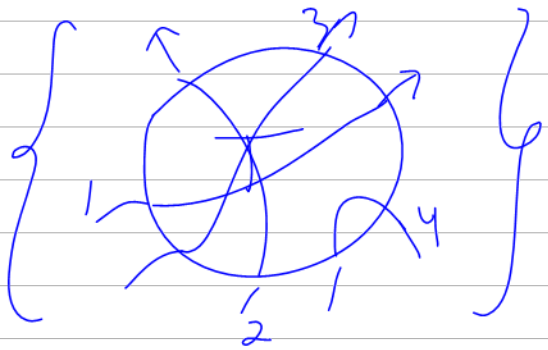
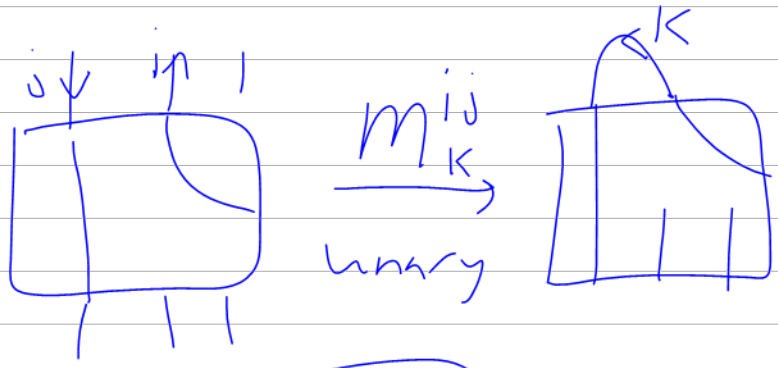


$T_1 \cup T_2$

stitching



$R = \mathbb{Z}\mathbb{Z}$

S-Component tangle T

$\beta(T) \in R \times M_{s \times s}(R)$

(w, A)

$\beta(T_1 \cup T_2) = \left(w_1 w_2, \begin{pmatrix} A_1 & 0 \\ 0 & A_2 \end{pmatrix}\right)$

$$m_K^{i,j}(\underline{w}, A) = \left((1-a_{i,j})w, \begin{matrix} \text{row} \\ \downarrow \\ \text{old col} \end{matrix}\right)$$

i $\left(\begin{matrix} \vdots & \vdots \\ \cdots & \cdots \\ \vdots & \vdots \end{matrix}\right)$ n

j

$$\beta\left(\nearrow\right) = \left(1, \begin{pmatrix} t & 1-t \\ 0 & 1 \end{pmatrix}\right)$$