IIB

$$3 \ddagger \frac{1}{5}$$

$$\left.\begin{array}{c|c} p & r \\ \hline q & s \end{array}\right. \in \mathrm{SL}_2^{\mathbb{Z}}$$

$ps - qr = 1$ rel prime

$$\begin{bmatrix} p \\ q \end{bmatrix}_1 = \left.\begin{array}{c|c} p & r \\ \hline q & s \end{array}\right. \begin{bmatrix} 1 \\ 0 \end{bmatrix}_1 = p \begin{bmatrix} 1 \\ 0 \end{bmatrix}_1 + q \begin{bmatrix} 0 \\ 1 \end{bmatrix}_1$$ bd state fund string/D string

$$\text{monodromy around } \begin{bmatrix} p \\ q \end{bmatrix}_7 \implies \text{branch cut } 0_{\mathbb{C}} \sim \infty$$

$$M_{pq} = \left.\begin{array}{c|c} 1-pq & p^2 \\ \hline -q^2 & 1+pq \end{array}\right. = \left.\begin{array}{c|c} p & r \\ \hline q & s \end{array}\right. M_{10} \left.\begin{array}{c|c} p & r \\ \hline q & s \end{array}\right.^{-1} = \left.\begin{array}{c|c} p & r \\ \hline q & s \end{array}\right. T \left.\begin{array}{c|c} p & r \\ \hline q & s \end{array}\right.^{-1}$$

$$(1-pq)(1+pq) + p^2 q^2 = 1 - (pq)^2 + p^2 q^2 = 1$$

$$M_{10} = \left.\begin{array}{c|c} 1 & 1 \\ \hline 0 & 1 \end{array}\right. = T$$

$$M_{pq} \begin{bmatrix} p \\ q \end{bmatrix} = \left.\begin{array}{c|c} 1-pq & p^2 \\ \hline -q^2 & 1+pq \end{array}\right. \begin{bmatrix} p \\ q \end{bmatrix} = \begin{bmatrix} (1-pq)p + p^2 q \\ -q^2 p + (1+pq)q \end{bmatrix} = \begin{bmatrix} p \\ q \end{bmatrix}$$

$$\not{\mathbb{X}} = \not{\mathcal{O}} + i \not{\mathbb{Q}}^{-1}$$

$\begin{bmatrix} m \\ n \end{bmatrix}_1$ string crosses branch cut anti-clockwise $\implies M_{pq} \begin{bmatrix} m \\ n \end{bmatrix}$ string