

$$\begin{array}{ccc}
& \mathbb{G}_1^n & \\
L & \supset & U \\
\downarrow & & \\
\mathbb{G}_1^n & \ni & U \\
L^\perp & \supset & U^\perp \\
\downarrow & & \\
\mathbb{G}_1^n & \ni & U
\end{array}$$

$\mathbb{G}_{-1}^n \triangleleft \overbrace{\mathbb{X}^k L^\perp}^p$ twisted hol p-forms

$$\mathbb{G}_1^n \blacktriangleleft \overbrace{\mathbb{G}_{-1}^n \triangleleft \overbrace{\mathbb{X}^k L^\perp}^p}^q = \mathbb{G}_1^n \blacktriangleleft \mathbb{G}_{-1}^n \triangleleft \overbrace{\mathbb{X}^k L^\perp}^{pq}$$

$$\begin{cases} 1 \leq k \leq p \\ p-n \leq k \leq -1 \end{cases} \Rightarrow \mathbb{G}_1^n \blacktriangleleft \overbrace{\mathbb{G}_{-1}^n \triangleleft \overbrace{\mathbb{X}^k L^\perp}^p}^N = 0$$