

$$\overbrace{\Delta_{\infty}^+ \Delta_{\infty}^-}^{\mathbb{H}} \xrightarrow{\quad \mathcal{L}_r \quad} \underbrace{\Delta_{\infty}^-}_{2^L}$$

$$\Psi = \underbrace{\Psi_{\mathcal{L}_r}}_{\mathcal{L}} \circ \mathcal{L}$$

$$\begin{array}{ccc}
 \overbrace{\Delta_{\infty}^+ \Delta_{\infty}^-}^{\mathbb{H}} & & \\
 \uparrow & \searrow \Psi = \mathcal{H} \mathcal{L} & \\
 \mathcal{H} & & \overbrace{\Delta_{\infty}^+ \Delta_{\infty}^-}^{\mathbb{H}} \\
 \downarrow & \nearrow \mathcal{L} = \mathcal{H}^{-1} & \\
 \overbrace{\Delta_{\infty}^+ \Delta_{\infty}^-}^{\mathbb{H}} & &
 \end{array}$$