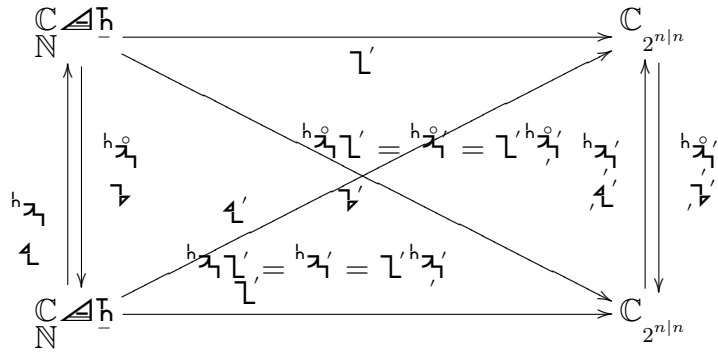


$$\begin{matrix} \mathbb{C} & \triangleleft & \mathbb{H} \\ \mathbb{N} & & \end{matrix} \xrightarrow{\quad \mathcal{L}' \quad} \mathbb{C}_{2^n|n}$$

$$\mathcal{L} = \mathcal{L}' \mathcal{L}, \mathcal{L}$$

$$\mathcal{L} = \mathcal{L}' \mathcal{L}, \mathcal{L}$$



$$\mathcal{L} \mathcal{L}'^* = \mathcal{L}' \mathcal{L} \mathcal{L}'^* = \det \mathcal{L}' \mathcal{L} \mathcal{L}'^* \mathcal{L}$$

$$\mathcal{L} = \begin{cases} \mathcal{L}^{h_{\mathcal{L}'}} h_{\mathcal{L}} \\ \mathcal{L} \mathcal{L}', \mathcal{L} \end{cases}$$

$$\mathcal{L}' = \begin{cases} \mathcal{L}' h_{\mathcal{L}'} h_{\mathcal{L}} \\ \mathcal{L}' \mathcal{L}', \mathcal{L}' \end{cases}$$

$$\mathcal{L} \mathcal{L}' = \begin{cases} \mathcal{L}^{h_{\mathcal{L}'}} h_{\mathcal{L}} = \mathcal{L}' h_{\mathcal{L}'} h_{\mathcal{L}} \\ \mathcal{L} \mathcal{L}' \mathcal{L}' = \mathcal{L}' \mathcal{L}' \mathcal{L}' \end{cases}$$

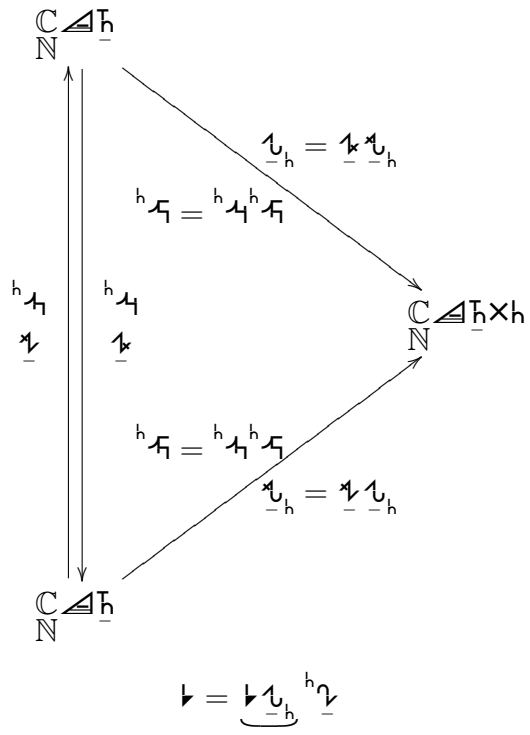
$$\mathcal{L}' \mathcal{L}' = \begin{cases} \mathcal{L}' h_{\mathcal{L}'} h_{\mathcal{L}} = \mathcal{L}' h_{\mathcal{L}'} h_{\mathcal{L}} \\ \mathcal{L}' \mathcal{L}' \mathcal{L}' = \mathcal{L}' \mathcal{L}' \mathcal{L}' \end{cases}$$

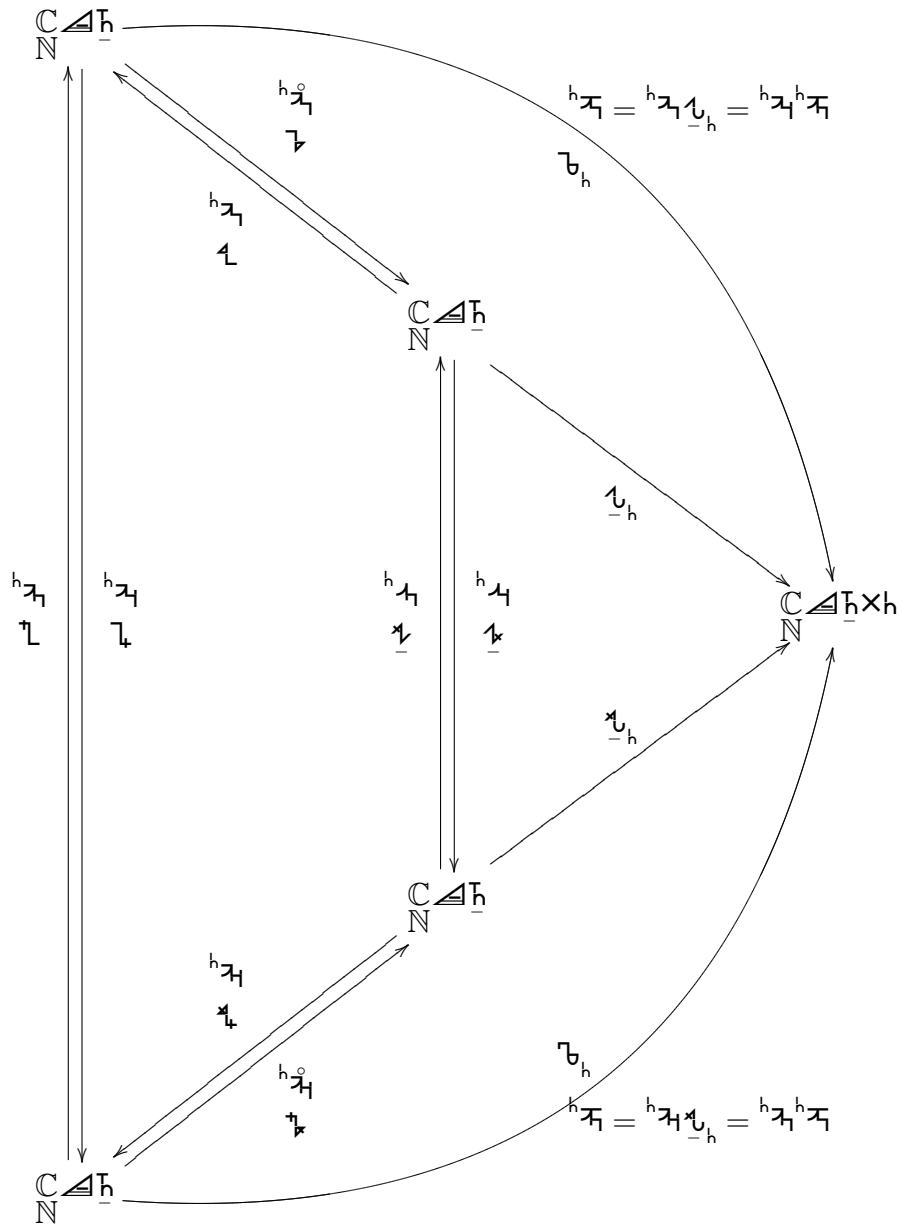
$$\begin{cases} \mathcal{L}^{h_{\mathcal{L}'}} = \mathcal{L}' h_{\mathcal{L}'} h_{\mathcal{L}} = \mathcal{L}' h_{\mathcal{L}'} \mathcal{L}' \\ \mathcal{L} \mathcal{L}' = \mathcal{L}' \mathcal{L}' \mathcal{L}' = \mathcal{L}' \mathcal{L}' \end{cases}$$

$$\begin{cases} \mathcal{L}' h_{\mathcal{L}'} = \mathcal{L}' h_{\mathcal{L}'} h_{\mathcal{L}} = \mathcal{L}' h_{\mathcal{L}'} \mathcal{L}' \\ \mathcal{L}' \mathcal{L}' = \mathcal{L}' \mathcal{L}' \mathcal{L}' = \mathcal{L}' \mathcal{L}' \end{cases}$$

$$\begin{cases} \mathcal{L}^{h_{\mathcal{L}'}} = \mathcal{L}' h_{\mathcal{L}'} h_{\mathcal{L}} = \mathcal{L}' h_{\mathcal{L}'} \mathcal{L}' \\ \mathcal{L} \mathcal{L}' = \mathcal{L}' \mathcal{L}' \mathcal{L}' = \mathcal{L}' \mathcal{L}' \end{cases}$$

$$\begin{cases} \mathcal{L}' h_{\mathcal{L}'} = \mathcal{L}' h_{\mathcal{L}'} h_{\mathcal{L}} = \mathcal{L}' h_{\mathcal{L}'} \mathcal{L}' \\ \mathcal{L}' \mathcal{L}' = \mathcal{L}' \mathcal{L}' \mathcal{L}' = \mathcal{L}' \mathcal{L}' \end{cases}$$





$$\begin{aligned}
 \mathcal{L} &= \left\{ \begin{array}{l} \mathcal{L}^{h_1, h_2} \\ \mathcal{L}^{h_3, h_4} \end{array} \right. \\
 \left\{ \begin{array}{l} \mathcal{L}^{h_1} = \mathcal{L}^{h_2, h_3} \\ \mathcal{L}^{h_4} = \mathcal{L}^{h_5, h_6} \end{array} \right. \\
 \mathcal{L}^{h_7} &= \left\{ \begin{array}{l} \mathcal{L}^{h_8, h_9} \\ \mathcal{L}^{h_{10}, h_{11}} \end{array} \right.
 \end{aligned}$$

$$\left\{ \begin{array}{l} \downarrow^{h_2} = \downarrow_{\mathcal{C}_b}^{h_2} \\ \downarrow^{\mathcal{C}_b} = \downarrow_{\mathcal{C}_b}^{h_2} \end{array} \right.$$

$$\left\{ \begin{array}{l} \downarrow^{h_2} = \downarrow_{\mathcal{C}_b}^{h_2} \\ \downarrow^{\mathcal{C}_b} = \downarrow_{\mathcal{C}_b}^{h_2} \end{array} \right.$$

