

$$\underbrace{\mathfrak{h}^\infty}_{\mathfrak{h}} \triangleleft \mathfrak{h} \triangleleft \mathbb{C}^{\mathbb{N}} \xleftarrow{\mathfrak{l}'} \underbrace{\mathfrak{h}^\infty}_{\mathfrak{h}} \triangleleft \mathbb{C}^{2^{n|n}}$$

$$\underbrace{\mathfrak{h}^\infty}_{\mathfrak{h}} \triangleleft \mathfrak{h} \triangleleft \mathbb{C}^{\mathbb{N}} \ni \mathfrak{l}^J = \sum_{j \in J} \mathfrak{l}^j \quad \text{dual standard basis}$$

$$\mathfrak{l}^I \mathfrak{l}^J = \det \mathfrak{l}^i \mathfrak{l}^j = \det {}_i \delta^j = {}_I \delta^J = {}_I \mathfrak{l} \mathfrak{l}^J$$

$$\mathfrak{l}^I = {}_I \mathfrak{l}$$

$$\mathfrak{l}^I \times \mathfrak{l}^J = \mathfrak{l}^I \bar{\eta}^1 \mathfrak{l}^J = \det \mathfrak{l}^i \times \mathfrak{l}^j = \det {}_i \eta^j = {}_I \eta^J = {}_I \bar{\eta}^{1J}$$

$$\times {}_I \mathfrak{l} = \mathfrak{l}^I {}_I \eta^I$$

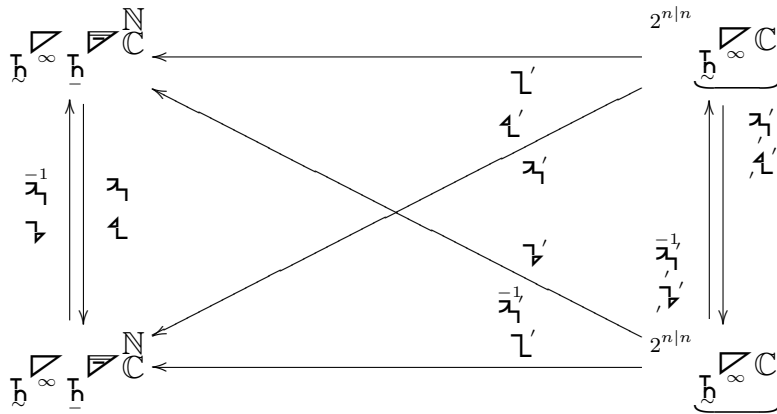
$$\mathfrak{l}^I = (\times {}_I \mathfrak{l}) {}_I \eta^I$$

$$* \mathfrak{l}^I = \mathfrak{l}^{N-I} \begin{matrix} I > N-I \\ -1 \end{matrix} {}_I \eta^I$$

$$\mathfrak{A} = \mathfrak{l} \mathfrak{l}^I \mathfrak{A}: \quad {}_M \mathfrak{l} \mathfrak{l}^N = \det ({}_\mu \mathfrak{l} \mathfrak{l}^\nu) = \det {}_\mu \delta^\nu = {}_M \delta^N$$

$$\mathfrak{A} = \mathfrak{l} \mathfrak{l}^I \mathfrak{A}: \quad \mathfrak{l}^I \mathfrak{l}^J = \det \mathfrak{l}^i \mathfrak{l}^j = \det {}_i \delta^j = {}_I \delta^J = {}_I \mathfrak{l} \mathfrak{l}^J$$

$$\mathfrak{l}^I = {}_I \mathfrak{l}$$



$$\mathfrak{l}^I \times_{\mathfrak{h}} \mathfrak{l}^J = \begin{cases} \mathfrak{l}^I \mathfrak{h} \mathfrak{l}^J = \mathfrak{h}^{IJ} \\ \mathfrak{l}^I \mathfrak{b} \mathfrak{l}^J = {}_I \mathfrak{l} \mathfrak{b} \mathfrak{l}^J = \det \mathfrak{l}^i \times \mathfrak{l}^j = \det {}_I \mathfrak{b}^j = {}_I \mathfrak{b}^J \end{cases}$$

$$\times {}_J \mathfrak{l} = \sum_{|I|=|J|} \mathfrak{l}^I \times {}_I \mathfrak{l}^J$$

$$\mathcal{L}' = \begin{cases} \mathcal{A}' = \mathcal{A}'^{-1} \\ \mathcal{B}' = \mathcal{B}'^{-1} \end{cases} : \mathcal{L}^N = \begin{cases} \mathcal{A}^{-1N} = \mathcal{A}^K \mathcal{A}^{-1N} \\ \mathcal{B}^N = \mathcal{A}^K \mathcal{B}^N \end{cases}$$

$$\begin{cases} \mathcal{A}' = \mathcal{L}' \mathcal{A}' = \mathcal{A}' \mathcal{L}' \\ \mathcal{B}' = \mathcal{L}' \mathcal{B}' = \mathcal{B}' \mathcal{L}' \end{cases} \begin{cases} \mathcal{A}^J = \mathcal{L}^L \mathcal{A}^J = \mathcal{A}^J \mathcal{L}^L \\ \mathcal{B}^J = \mathcal{L}^L \mathcal{B}^J = \mathcal{B}^J \mathcal{L}^L \end{cases}$$

$$\begin{cases} \mathcal{A}'^{-1} = \mathcal{L}' \mathcal{A}'^{-1} = \mathcal{A}'^{-1} \mathcal{L}' \\ \mathcal{B}'^{-1} = \mathcal{L}' \mathcal{B}'^{-1} = \mathcal{B}'^{-1} \mathcal{L}' \end{cases}$$

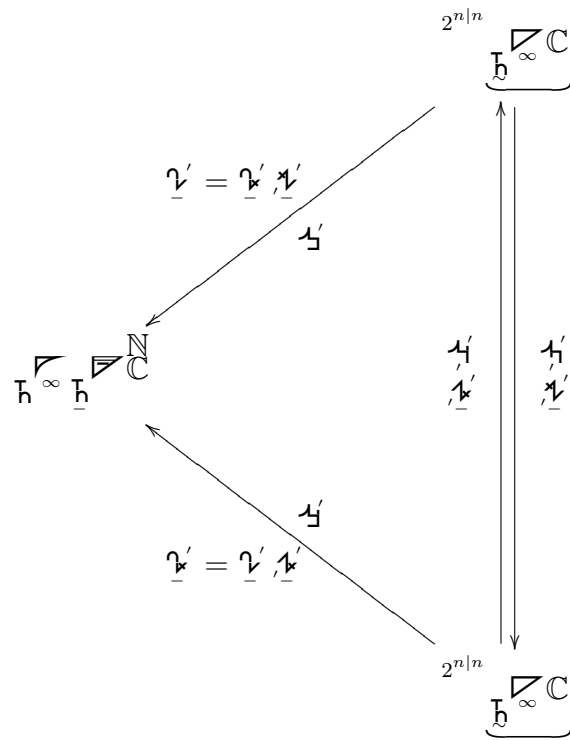
$$\begin{cases} \mathcal{A}^{-1N} = \mathcal{L}^K \mathcal{A}^{-1N} = \mathcal{A}^{-1N} \mathcal{L}^K \\ \mathcal{B}^N = \mathcal{L}^K \mathcal{B}^N = \mathcal{B}^N \mathcal{L}^K \end{cases}$$

$$\begin{cases} \mathcal{A}' = \mathcal{L} \mathcal{A}' = \mathcal{A}' \mathcal{L} \\ \mathcal{B}' = \mathcal{L} \mathcal{B}' = \mathcal{B}' \mathcal{L} \end{cases}$$

$$\begin{cases} \mathcal{A}_M^J = \mathcal{L}_M \mathcal{A}_M^J = \mathcal{A}_M^J \mathcal{L}_M \\ \mathcal{B}_M^J = \mathcal{L}_M \mathcal{B}_M^J = \mathcal{B}_M^J \mathcal{L}_M \end{cases}$$

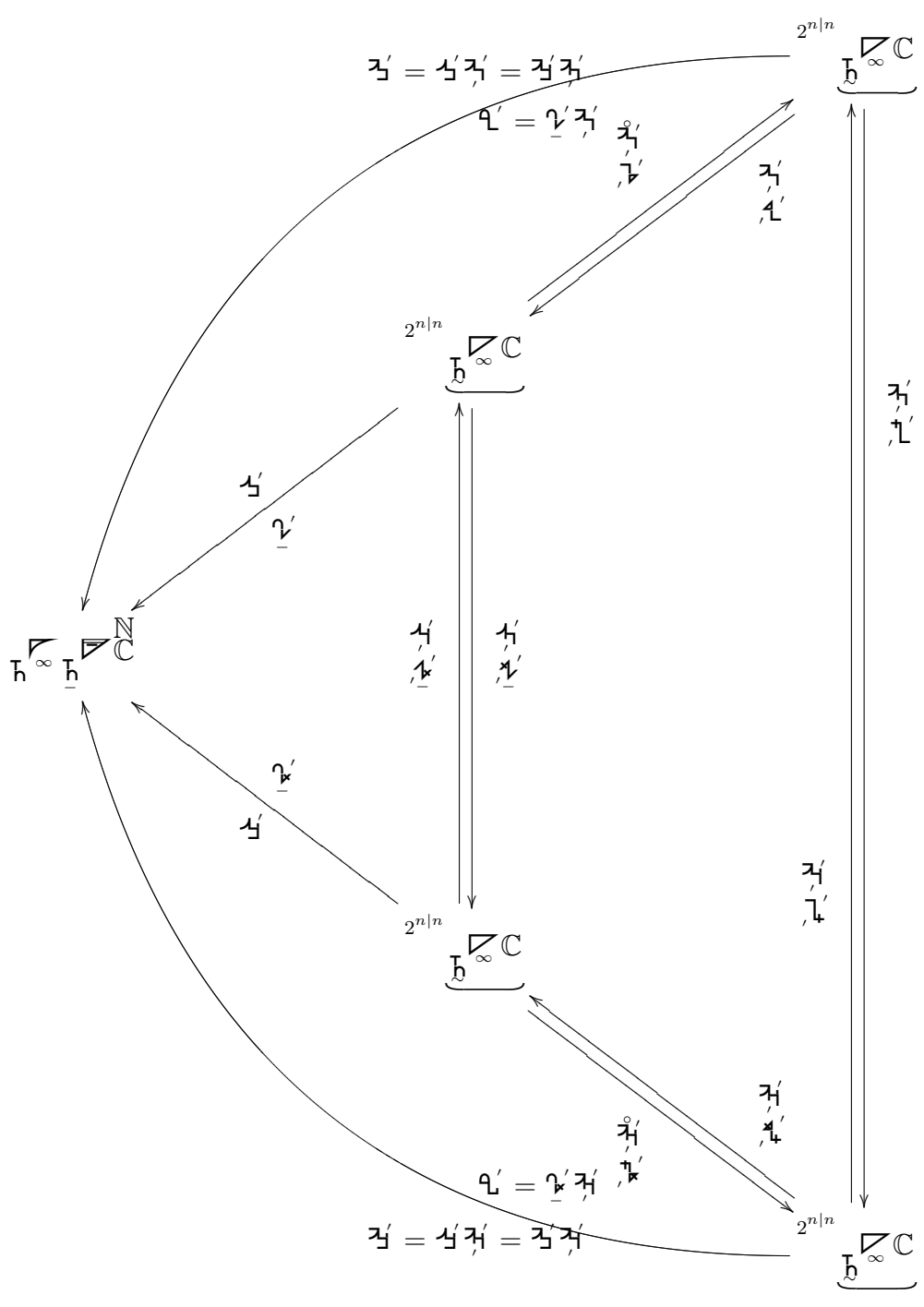
$$\begin{cases} \mathcal{A}'^{-1} = \mathcal{L} \mathcal{A}'^{-1} = \mathcal{A}'^{-1} \mathcal{L} \\ \mathcal{B}'^{-1} = \mathcal{L} \mathcal{B}'^{-1} = \mathcal{B}'^{-1} \mathcal{L} \end{cases}$$

$$\begin{cases} \mathcal{A}_I^{-1N} = \mathcal{L}_I \mathcal{A}_I^{-1N} = \mathcal{A}_I^{-1N} \mathcal{L}_I \\ \mathcal{B}_I^N = \mathcal{L}_I \mathcal{B}_I^N = \mathcal{B}_I^N \mathcal{L}_I \end{cases}$$



$\mathbb{H}_\infty \mathbb{H}_\infty \mathbb{C} \mathbb{N} \ni \underline{\nu}^j$ holonomic basis

$$\underline{\nu}^j = \underline{\nu}^j \underline{\nu}^j: \quad M \delta^N = M \underline{\nu}^N$$



$$\begin{aligned} \mathbb{H}^{\infty} \mathbb{H}^{\infty} \mathbb{C}^{\mathbb{N}} &\ni \begin{cases} \psi^J & * \\ \varrho^J & = \sum_{j \in J} \varrho^j \end{cases} \text{ dual ONbasis} \\ \varrho^J \times \varrho^J &= \eta^J \end{aligned}$$

$$\mathbf{x}_I \mathbf{b} = \mathbf{a}^I \eta^I$$

$$\mathbf{a}^I = (\mathbf{x}_I \mathbf{b}) \eta^I$$

$$* \mathbf{a}^I = \mathbf{a}^{N+I} \overline{I > \overline{N+I}} \eta^I$$

$$\mathbf{a}^I = \begin{pmatrix} \mathbf{x}_I \mathbf{z}^I \\ \mathbf{b} \mathbf{a}^I \end{pmatrix} : \quad \mathbf{I} \delta^J = \begin{pmatrix} \mathbf{x}_I \mathbf{z}^J \\ \mathbf{b} \mathbf{a}^J \end{pmatrix}$$

$$\begin{cases} \mathbf{z}^I = \mathbf{z}^L \mathbf{z}^J \\ \mathbf{a}^I = \mathbf{a}^L \mathbf{a}^J \end{cases} \quad \begin{cases} \mathbf{z}^J = \mathbf{z}^L \mathbf{z}^J \\ \mathbf{a}^J = \mathbf{a}^L \mathbf{a}^J \end{cases}$$

$$\mathbf{z}^I \mathbf{a}^I = \begin{pmatrix} \mathbf{z}^I \mathbf{z}^I \\ \mathbf{a}^I \mathbf{a}^I \end{pmatrix} : \quad \mathbf{z}^N = \begin{pmatrix} \mathbf{z}^K \mathbf{z}^N \\ \mathbf{a}^K \mathbf{a}^N \end{pmatrix}$$

$$\begin{cases} \mathbf{z}^I \mathbf{a}^I = \mathbf{z}^M \mathbf{z}^I \\ \mathbf{a}^I \mathbf{a}^I = \mathbf{a}^M \mathbf{a}^I \end{cases} \quad \begin{cases} \mathbf{z}^J = \mathbf{z}^M \mathbf{z}^J \\ \mathbf{a}^J = \mathbf{a}^M \mathbf{a}^J \end{cases}$$

$$\begin{cases} \mathbf{z}^I \mathbf{a}^I = \mathbf{z}^I \mathbf{z}^I \\ \mathbf{a}^I \mathbf{a}^I = \mathbf{a}^I \mathbf{a}^I \end{cases} \quad \begin{cases} \mathbf{z}^N = \mathbf{z}^I \mathbf{z}^N \\ \mathbf{a}^N = \mathbf{a}^I \mathbf{a}^N \end{cases}$$

