

$$\mathbb{h}_{\Delta_{\infty}} \mathbb{h}_{\Delta} I \xleftarrow{\quad \mathcal{L} \quad} \underbrace{\mathbb{h}_{\Delta_{\infty}} I}_{n}$$

$$\mathbb{h}_{\Delta_{\infty}} \mathbb{h}_{\Delta} I \ni \mathcal{L}^j \text{ dual standard basis}$$

$$\mathcal{L}^i \star \mathcal{L}^j = \mathcal{L}^{*i} \circledast \mathcal{L}^j = \mathcal{L}_i \circledast \mathcal{L}^j = \eta^{ij}$$

$$\mathbf{h} = \mathcal{L} \underbrace{\mathcal{L} \mathbf{h}}$$

$$_i \delta^j = \mathcal{L} \mathcal{L}^j$$

$$\mathbf{h} = \mathcal{L} \underbrace{\mathcal{L} \mathbf{h}}$$

$$\mathcal{L}^{*i} \mathcal{L}^j = _i \delta^j = \mathcal{L} \mathcal{L}^j$$

$$\mathcal{L}^i = \mathcal{L}$$

$$\begin{array}{ccc} \mathbb{h}_{\Delta_{\infty}} \mathbb{h}_{\Delta} I & & \mathbb{h}_{\Delta_{\infty}} I \\ \uparrow & \searrow & \uparrow \\ \mathcal{L} & & \mathcal{L} \\ \downarrow & \swarrow & \downarrow \\ \mathbb{h}_{\Delta_{\infty}} \mathbb{h}_{\Delta} I & & \mathbb{h}_{\Delta_{\infty}} I \end{array}$$

$\mathcal{L} = \mathcal{L} = \mathcal{L}$

$$\mathcal{L}^i \star \mathcal{L}^j = \begin{cases} \mathcal{L}^{*i} \mathcal{L}^j = \mathcal{L}^{ij} \\ \mathcal{L}^{*i} \mathcal{L}^j = \mathcal{L} \mathcal{L}^j = \mathcal{L}^j \end{cases}$$

$$\mathbb{h}_{\Delta_{\infty}} \mathbb{h}_{\Delta} I \ni \begin{cases} \mathcal{L}^j = \mathcal{L}^j \\ \mathcal{L}^j = \mathcal{L}^j \end{cases} \text{ dual ONBasis}$$

$$\begin{cases} \mathcal{L} = \mathcal{L}^j \\ \mathcal{L} = \mathcal{L}^j \end{cases}$$

$$\begin{cases} \mathcal{L}^i \mathcal{L}^j = \delta^j \\ \mathcal{L}^i \mathcal{L}^j = \delta^j \end{cases}$$

$$\overline{\nabla} = \overline{\nabla}_i^* \eta^{ij} \overline{\nabla}_j^* = \overline{\nabla}_i^* \eta^{ij} \overset{\circ}{\nabla}_j$$

$$\text{ન} = \begin{cases} \text{ન} & \text{ન} \\ \text{ન} & \text{ન} \end{cases}$$

$$_i\delta^j = \begin{cases} \overset{\circ}{\text{L}} & j \\ i & \\ \overset{\circ}{\text{R}} & j \end{cases}$$

$$\text{中} = \begin{cases} \text{中} \\ \text{中} \end{cases}$$

$$_i\delta ^j=\left\{ \begin{array}{c} \nearrow \nwarrow \\ i \end{array} \right. \quad \left\{ \begin{array}{c} \searrow \swarrow \\ i \end{array} \right.$$

$$\text{ለ } \text{አ} = \begin{cases} \text{እ } \text{አ} \\ \text{እ } \text{አ} \end{cases} = \begin{cases} \text{እ } \text{አ} \\ \text{እ } \text{አ} \end{cases}$$

$$\mathfrak{L}^j = \begin{cases} \overset{\circ}{\lambda} \mathfrak{A}^j & = \overset{\circ}{\lambda}{}^i \mathfrak{A}^j \\ \mathfrak{A}^j & = \mathfrak{A}^i \overset{\circ}{\lambda}{}^j \end{cases}$$

$$\text{ئ} \cdot \text{ئ} = \begin{cases} \text{ئ} \overset{\circ}{\text{ئ}} \text{ئ} \\ \text{ئ} \overset{\circ}{\text{ئ}} \text{ئ} \end{cases} = \begin{cases} \text{ئ} \overset{\circ}{\text{ئ}} \text{ئ} \\ \text{ئ} \overset{\circ}{\text{ئ}} \text{ئ} \end{cases}$$

$$\mathfrak{L}^j = \begin{cases} \text{L}^j & = \text{L}^i \\ \text{R}^j & = \text{R}^i \end{cases}$$

$$\begin{cases} \text{ቅ.ክ} = \text{፩ } \underline{\text{ቅ.ክ}} = \text{፩ } \underline{\text{ቅ.ክ}} \\ \text{፩.ክ} = \text{፩ } \underline{\text{፩.ክ}} = \text{፩ } \underline{\text{፩.ክ}} \end{cases}$$

$$\begin{cases} \text{L}^j &= \text{L}^i \text{L}^j \\ \text{L}^j &= \text{L}^i \text{L}^j \end{cases}$$

$$\begin{cases} \text{का ए} = \text{ए का} \\ \text{ए ए} = \text{ए का} \end{cases}$$

$$\begin{cases} \overset{\circ}{\lambda}{}^j = \mathcal{L}^i \overset{\circ}{\lambda}{}_i{}^j = \overset{\circ}{\lambda}{}^i \mathcal{L}^j \\ \overset{\circ}{\alpha}{}^j = \mathcal{L}^i \overset{\circ}{\alpha}{}_i{}^j = \overset{\circ}{\alpha}{}^i \mathcal{L}^j \end{cases}$$

$$\begin{cases} \overset{\circ}{\lambda} \cdot \overset{\circ}{\alpha} = \mathcal{L} \underbrace{\overset{\circ}{\lambda} \cdot \overset{\circ}{\alpha}} = \overset{\circ}{\lambda} \mathcal{L} \cdot \overset{\circ}{\alpha} \\ \overset{\circ}{\alpha} \cdot \overset{\circ}{\alpha} = \mathcal{L} \underbrace{\overset{\circ}{\alpha} \cdot \overset{\circ}{\alpha}} = \overset{\circ}{\alpha} \mathcal{L} \cdot \overset{\circ}{\alpha} \end{cases}$$

$$\begin{cases} \overset{\circ}{\lambda}{}_i{}^j = \mathcal{L} \overset{\circ}{\lambda}{}_i{}^j = \overset{\circ}{\lambda}{}_i \mathcal{L}^j \\ \overset{\circ}{\alpha}{}_i{}^j = \mathcal{L} \overset{\circ}{\alpha}{}_i{}^j = \overset{\circ}{\alpha}{}_i \mathcal{L}^j \end{cases}$$

$$\begin{cases} \overset{\circ}{\lambda} \cdot \overset{\circ}{\alpha} = \mathcal{L} \underbrace{\overset{\circ}{\lambda} \cdot \overset{\circ}{\alpha}} = \overset{\circ}{\lambda} \mathcal{L} \cdot \overset{\circ}{\alpha} \\ \overset{\circ}{\alpha} \cdot \overset{\circ}{\alpha} = \mathcal{L} \underbrace{\overset{\circ}{\alpha} \cdot \overset{\circ}{\alpha}} = \overset{\circ}{\alpha} \mathcal{L} \cdot \overset{\circ}{\alpha} \end{cases}$$

$$\begin{cases} \overset{\circ}{\lambda}{}_i{}^j = \mathcal{L} \overset{\circ}{\lambda}{}_i{}^j = \overset{\circ}{\lambda}{}_i \mathcal{L}^j \\ \overset{\circ}{\alpha}{}_i{}^j = \mathcal{L} \overset{\circ}{\alpha}{}_i{}^j = \overset{\circ}{\alpha}{}_i \mathcal{L}^j \end{cases}$$