

$$\varkappa_{\ell+1}>0\overset{*}{\implies}(\ell a/2)_{\varkappa}=0$$

$$\varkappa_{\ell+1}>0\overset{j=\ell+1}{\implies}\prod_i^{\varkappa_{\ell+1}}\Big(i+\ell\frac{a}{2}-\ell\frac{a}{2}\Big)=0$$

$$\varkappa_{\ell+1}>0\overset{**}{\implies}{}^z\mathcal{E}_x^{\varkappa}=0$$

$$z\!:\!w\in B\Rightarrow\int\limits_{d\mu\left(x\right)}^{Z_{\ell}}{}^z\mathcal{E}_x{}^x\mathcal{E}_w={}^z\mathcal{D}_w^{-\ell a/2}$$

$$x\in Z_{\ell}\overset{**}{\implies}{}^z\mathcal{E}_x=\sum_{\varkappa}^{\mathbb{N}^{\ell}_+}{}^z\mathcal{E}_x^{\varkappa}\colon\quad{}^x\mathcal{E}_w=\sum_{\varkappa}^{\mathbb{N}^{\ell}_+}{}^x\mathcal{E}_w^{\varkappa}$$

$$\varkappa\in\mathbb{N}^{\ell}_+\Rightarrow\int\limits_{d\mu\left(x\right)}^{Z_{\ell}}{}^z\mathcal{E}_x^{\varkappa}{}^x\mathcal{E}_w^{\varkappa}=(\ell a/2)_{\varkappa}{}^z\mathcal{E}_w^{\varkappa}$$

$$\text{LHS}=\sum_{\varkappa}^{\mathbb{N}^{\ell}_+}\int\limits_{d\mu\left(x\right)}^{Z_{\ell}}{}^z\mathcal{E}_x^{\varkappa}{}^x\mathcal{E}_w^{\varkappa}=\sum_{\varkappa}^{\mathbb{N}^{\ell}_+}(\ell a/2)_{\varkappa}{}^z\mathcal{E}_w^{\varkappa}=\sum_{\varkappa}^{\mathbb{N}^r_+}(\ell a/2)_{\varkappa}{}^z\mathcal{E}_w^{\varkappa}\overset{\overline{\text{FK}}}{=} \text{RHS}$$

$$z\in B\overset{\text{emb}}{\longrightarrow}\mathbb{S}\left(\mathcal{H}_0\right)\ni{}^z\mathcal{D}_z^{\ell a/4}\mathcal{E}_z$$

$$\underbrace{{}^z\mathcal{D}_z^{\ell a/4}\mathcal{E}_z}_{\mathfrak{Z}}\mathfrak{X}\underbrace{{}^w\mathcal{D}_w^{\ell a/4}\mathcal{E}_w}_{\mathfrak{Z}}={}^z\mathcal{D}_z^{\ell a/4}{}^z\mathcal{D}_w^{-\ell a/2}{}^w\mathcal{D}_w^{\ell a/4}$$