$$
{}^{z}\overbrace{\ulcorner w \urcorner \rceil} \;\underset{\text{Weyl}}{\underline{\underline{\text{lic}}}}\; {}^{2w-z}\rceil\, {}^{z-w}\mathcal{E}_{w}^{2\nu}
$$

$$
{}^{z}\overbrace{\overset{\gamma}{\ulcorner \zeta \urcorner} \rceil} = {}^{\gamma z+(1-\gamma)\zeta}\rceil\, {}^{z-\zeta}_{\nu}\mathcal{E}_{\zeta}^{1-\gamma}
$$

$$
{}^{z}\mathcal{E}_{w}^{-\nu}\; {}^{z}\overbrace{\overset{\alpha}{\ulcorner \xi \urcorner}\overset{\beta}{\ulcorner \eta \urcorner}\mathcal{E}_{w}^{\nu}} = {}^{\xi|\eta|z}_{\nu}\boxed{\mathcal{E}}_{\xi|\eta|w}^{\begin{array}{c|c|c} \alpha-1 & (1-\alpha)(1-\beta) & (1-\alpha)\beta \\ \hline 0 & \beta-1 & 1-\beta \\ \hline 1-\alpha & \alpha(1-\beta) & \alpha\beta-1 \end{array}}
$$

$$
\text{LHS} = {}^{z}\mathcal{E}_{w}^{-\nu}\; {}^{\alpha z+(1-\alpha)\xi}\overbrace{\overset{\beta}{\ulcorner \eta \urcorner}\mathcal{E}_{w}^{\nu}}\; {}^{z-\xi}_{\nu}\mathcal{E}_{\xi}^{1-\alpha}
$$

$$
= {}^{z}\mathcal{E}_{w}^{-\nu}\; {}^{\beta(\alpha z+(1-\alpha)\xi)+(1-\beta)\eta}\mathcal{E}_{w}^{\nu}\; {}^{\alpha z+(1-\alpha)\xi-\eta}_{\nu}\mathcal{E}_{\eta}^{1-\beta}\; {}^{z-\xi}_{\nu}\mathcal{E}_{\xi}^{1-\alpha} = \text{RHS}
$$

$$
P = a+b+c+d+(1-\gamma)/2
$$

$$
{}^{z}\mathcal{E}_{w}^{-\nu}\left(\frac{2\nu}{\pi}\right)^{d}\int_{d\zeta}^{\mathbb{C}_d} {}^{\xi|\eta|\zeta}_{2\nu}\boxed{\mathcal{E}}_{\xi|\eta|\zeta}^{\begin{array}{c|c|c} -a & -b & a+b \\ \hline -c & -d & c+d \\ \hline a+c & b+d & -a-b-c-d \end{array}}\; {}^{z}\overbrace{\overset{\gamma}{\ulcorner \zeta \urcorner}\mathcal{E}_{w}^{\nu}}
$$

$$
= P^{-d}\; {}^{\xi|\eta|z}_{2\nu/P}\boxed{\mathcal{E}}_{\xi|\eta|w}^{\begin{array}{c|c|c} bc-ad-a(1-\gamma)/2 & ad-bc-b(1-\gamma)/2 & (a+b)(1-\gamma)/2 \\ \hline ad-bc-c(1-\gamma)/2 & bc-ad-d(1-\gamma)/2 & (c+d)(1-\gamma)/2 \\ \hline (a+c)(1-\gamma)/2 & (b+d)(1-\gamma)/2 & (a+b+c+d)(\gamma-1)/2 \end{array}}
$$

$$
\text{LHS} = \left(\frac{2\nu}{\pi}\right)^{d}\int_{d\zeta}^{\mathbb{C}_d} {}^{\xi|\eta|\zeta}_{2\nu}\boxed{\mathcal{E}}_{\xi|\eta|\zeta}^{\begin{array}{c|c|c} -a & -b & a+b \\ \hline -c & -d & c+d \\ \hline a+c & b+d & -a-b-c-d \end{array}}\; {}^{\gamma z+(1-\gamma)\zeta}\mathcal{E}_{w}^{\nu}\; {}^{z-\zeta}_{\nu}\mathcal{E}_{\zeta}^{1-\gamma}
$$

$$
= {}^{z}_{\nu}\mathcal{E}_{w}^{\gamma-1}\; {}^{\xi|\eta}_{-2\nu}\boxed{\mathcal{E}}_{\xi|\eta}^{\begin{array}{c|c} a & b \\ \hline c & d \end{array}}\left(\frac{2\nu}{\pi}\right)^{d}\int_{d\zeta}^{\mathbb{C}_d} {}^{\zeta}_{2\nu}\mathcal{E}_{\zeta}^{-P}\; {}^{\bar{\xi}|\bar{\eta}|\bar{w}}_{2\nu}\boxed{\mathcal{E}}_{\bar{\zeta}}^{\begin{array}{c} a+c \\ \hline b+d \\ \hline (1-\gamma)/2 \end{array}}\; {}^{\xi|\eta|z}_{2\nu}\boxed{\mathcal{E}}_{\zeta}^{\begin{array}{c} a+b \\ \hline c+d \\ \hline (1-\gamma)/2 \end{array}}
$$

$$
\underset{\text{Gauss}}{=}\; {}^{z}_{\nu}\mathcal{E}_{w}^{\gamma-1}\; {}^{\xi|\eta}_{-2\nu}\boxed{\mathcal{E}}_{\xi|\eta}^{\begin{array}{c|c} a & b \\ \hline c & d \end{array}}\; P^{-d}\; {}^{\xi|\eta|z}_{2\nu/P}\boxed{\mathcal{E}}_{\xi|\eta|w}^{\begin{array}{c} a+b \\ \hline c+d \\ \hline (1-\gamma)/2 \end{array}}\; a+c \mid b+d \mid (1-\gamma)/2
$$

$$
= P^{-d}\; {}^{\xi|\eta|z}_{2\nu/P}\boxed{\mathcal{E}}_{\xi|\eta|w}^{\begin{array}{c|c|c} (a+b)(a+c)-aP & (a+b)(b+d)-bP & (a+b)(1-\gamma)/2 \\ \hline (c+d)(a+c)-cP & (c+d)(b+d)-dP & (c+d)(1-\gamma)/2 \\ \hline (a+c)(1-\gamma)/2 & (b+d)(1-\gamma)/2 & (1-\gamma)^2/4+P(\gamma-1)/2 \end{array}} = \text{RHS}
$$

$$\overset{\alpha}{\ulcorner\xi}\ \overset{\beta}{\ulcorner\eta} = \left(\frac{\nu(1-\gamma)^2}{\pi(\alpha\beta-\gamma)}\right)^{d} \int_{d\zeta}^{\mathbb{C}_d} {}^{\xi|\eta|\zeta}_{2\nu}\boxed{\mathcal{E}}^{\begin{array}{c|c|c} -a & -b & a+b \\ \hline -c & -d & c+d \\ \hline a+c & b+d & -a-b-c-d \end{array}}_{\xi|\eta|\zeta}\ \overset{\gamma}{\ulcorner\zeta}$$

$$\frac{4(\alpha\beta-\gamma)}{1-\gamma}(ad-bc) = (1-\alpha)(1-\beta)$$

$$2(\alpha\beta-\gamma)\frac{a}{c}\left|\frac{b}{d}\right. = \frac{(1-\alpha)(\beta-\gamma)}{(1-\alpha)(1-\beta)}\left|\frac{(1-\alpha)(1-\beta)\gamma}{(\alpha-\gamma)(1-\beta)}\right.$$

$$\frac{2(\alpha\beta-\gamma)}{1-\gamma}P = \frac{2(\alpha\beta-\gamma)}{1-\gamma}\left(a+b+c+d+\frac{1-\gamma}{2}\right) = 1-\gamma$$

$$\Rightarrow \frac{4(\alpha\beta-\gamma)}{1-\gamma}\begin{array}{c|c} bc-ad-a\frac{1-\gamma}{2} & ad-bc-b\frac{1-\gamma}{2} \\ \hline ad-bc-c\frac{1-\gamma}{2} & bc-ad-d\frac{1-\gamma}{2} \end{array} = \underbrace{\frac{4(\alpha\beta-\gamma)}{1-\gamma}\frac{P}{2}}_{=1-\gamma}\begin{array}{c|c} \alpha-1 & (1-\alpha)(1-\beta) \\ \hline 0 & \beta-1 \end{array} \Rightarrow$$

$$\begin{array}{c|c|c} bc-ad-a\frac{1-\gamma}{2} & ad-bc-b\frac{1-\gamma}{2} & (a+b)\frac{1-\gamma}{2} \\ \hline ad-bc-c\frac{1-\gamma}{2} & bc-ad-d\frac{1-\gamma}{2} & (c+d)\frac{1-\gamma}{2} \\ \hline (a+c)\frac{1-\gamma}{2} & (b+d)\frac{1-\gamma}{2} & (a+b+c+d)(\gamma-1)/2 \end{array} = \frac{P}{2}\begin{array}{c|c|c} \alpha-1 & (1-\alpha)(1-\beta) & (1-\alpha)\beta \\ \hline 0 & \beta-1 & 1-\beta \\ \hline 1-\alpha & \alpha(1-\beta) & \alpha\beta-1 \end{array}$$

$$\Rightarrow P^{d\ z}\mathrm{LHS} = P^{d\ z}\mathrm{RHS}$$

$${}^{z}\left(\ulcorner x\,\overset{1-\alpha}{\ulcorner y}\,\urcorner\right) = \overbrace{\overset{1-\alpha}{\ulcorner y}\,\urcorner}^{2x-z}\ {}^{z}\mathcal{E}_x^{2\nu}\ {}^{x}\mathcal{E}_x^{-2\nu} = {}^{(1-\alpha)(2x-z)+\alpha y}\urcorner\ {}^{2x-z}\mathcal{E}_y^{\nu\alpha}\ {}^{y}\mathcal{E}_y^{-\nu\alpha}\ {}^{z}\mathcal{E}_x^{2\nu}\ {}^{x}\mathcal{E}_x^{-2\nu}$$

$${}^{z}\left(\ulcorner x\,\overset{1-\alpha}{\ulcorner y}\,\mathcal{E}_z^{\nu}\right) = \overbrace{\overset{1-\alpha}{\ulcorner y}\,\urcorner}^{2x-z}\ {}^{z}\mathcal{E}_x^{2\nu}\ {}^{x}\mathcal{E}_x^{-2\nu} = {}^{(1-\alpha)(2x-z)+\alpha y}\mathcal{E}_z^{\nu}\ {}^{2x-z}\mathcal{E}_y^{\nu\alpha}\ {}^{y}\mathcal{E}_y^{-\nu\alpha}\ {}^{z}\mathcal{E}_x^{2\nu}\ {}^{x}\mathcal{E}_x^{-2\nu}$$

$$= {}^{x}\mathcal{E}_z^{2\nu(1-\alpha)}\ {}^{z}\mathcal{E}_z^{-\nu(1-\alpha)}\ {}^{y}\mathcal{E}_z^{\nu\alpha}\ {}^{x}\mathcal{E}_y^{2\nu\alpha}\ {}^{z}\mathcal{E}_y^{-\nu\alpha}\ {}^{y}\mathcal{E}_y^{-\nu\alpha}\ {}^{z}\mathcal{E}_x^{2\nu}\ {}^{x}\mathcal{E}_x^{-2\nu}$$

$$\operatorname{tr} \overline{x}\, \overline{y}^{\,1\text{-}\alpha} = \overbrace{2-\alpha}^{-d}\ {}^{x-y}\mathcal{E}_{x-y}^{2-\nu\alpha/(2-\alpha)}$$

$$\overbrace{2-\alpha}^{d} \operatorname{tr} \overline{x}\, \overline{y}^{\,1\text{-}\alpha} = \overbrace{\nu\underbrace{2-\alpha}}^{d} \int_{dz/\pi^d}^{Z} {}^{z}\mathcal{E}_z^{-\nu}\ {}^{z}\left(\overline{x}\,\overline{y}^{\,1\text{-}\alpha}\mathcal{E}_z^{\nu}\right)$$

$$= \overbrace{\nu\underbrace{2-\alpha}}^{d} \int_{dz/\pi^d}^{Z} {}^{z}\mathcal{E}_z^{-\nu}\ {}^{x}\mathcal{E}_z^{2\nu(1-\alpha)}\ {}^{z}\mathcal{E}_z^{-\nu(1-\alpha)}\ {}^{y}\mathcal{E}_z^{\nu\alpha}\ {}^{x}\mathcal{E}_y^{2\nu\alpha}\ {}^{z}\mathcal{E}_y^{-\nu\alpha}\ {}^{y}\mathcal{E}_y^{-\nu\alpha}\ {}^{z}\mathcal{E}_x^{2\nu}\ {}^{x}\mathcal{E}_x^{-2\nu}$$

$$= {}^{x}\mathcal{E}_x^{-2\nu}\ {}^{x}\mathcal{E}_y^{2\nu\alpha}\ {}^{y}\mathcal{E}_y^{-\nu\alpha} \int_{dz/\pi^d}^{Z} \frac{\overbrace{\nu\underbrace{2-\alpha}}^{d}}{{}^{z}\mathcal{E}_z^{\nu(2-\alpha)}}\ {}^{x}\mathcal{E}_z^{2\nu(1-\alpha)}\ {}^{y}\mathcal{E}_z^{\nu\alpha}\ {}^{z}\mathcal{E}_y^{-\nu\alpha}\ {}^{z}\mathcal{E}_x^{2\nu}$$

$$= {}^{x}\mathcal{E}_x^{-2\nu}\ {}^{x}\mathcal{E}_y^{2\nu\alpha}\ {}^{y}\mathcal{E}_y^{-\nu\alpha} \int_{dz/\pi^d}^{Z} \frac{\overbrace{\nu\underbrace{2-\alpha}}^{d}}{{}^{z}\mathcal{E}_z^{\nu(2-\alpha)}}\ {}^{2(1-\alpha)x/(2-\alpha)+\alpha y/(2-\alpha)}\mathcal{E}_z^{\nu(2-\alpha)}\ {}^{z}\mathcal{E}_y^{-\nu\alpha}\ {}^{z}\mathcal{E}_x^{2\nu}$$

$$= {}^{x}\mathcal{E}_x^{-2\nu}\ {}^{x}\mathcal{E}_y^{2\nu\alpha}\ {}^{y}\mathcal{E}_y^{-\nu\alpha}\ {}^{2(1-\alpha)x/(2-\alpha)+\alpha y/(2-\alpha)}\mathcal{E}_y^{-\nu\alpha}\ {}^{2(1-\alpha)x/(2-\alpha)+\alpha y/(2-\alpha)}\mathcal{E}_x^{2\nu}$$

$$= {}^{x}\mathcal{E}_x^{-2\nu}\ {}^{x}\mathcal{E}_y^{2\nu\alpha}\ {}^{y}\mathcal{E}_y^{-\nu\alpha}\ {}^{x}\mathcal{E}_x^{4\nu(1-\alpha)/(2-\alpha)}\ {}^{y}\mathcal{E}_x^{2\nu\alpha/(2-\alpha)}\ {}^{x}\mathcal{E}_y^{2\nu(1-\alpha)(-\alpha)/(2-\alpha)}\ {}^{y}\mathcal{E}_y^{-\nu\alpha^2/(2-\alpha)}$$

$$= {}^{x}\mathcal{E}_x^{2-\nu\alpha/(2-\alpha)}\ {}^{x}\mathcal{E}_y^{2\nu\alpha/(2-\alpha)}\ {}^{y}\mathcal{E}_x^{2\nu\alpha/(2-\alpha)}\ {}^{y}\mathcal{E}_y^{2-\nu\alpha/(2-\alpha)} = {}^{x-y}\mathcal{E}_{x-y}^{2-\nu\alpha/(2-\alpha)}$$

$${}^{z}\overbrace{\overline{w}\,\daleth} = {}^{\nu(1-\alpha)(z-w)\bar{w}}e^{\ \alpha z+(1-\alpha)w}\,\daleth$$

$$\text{fund fct }{}_{w}\mathfrak{b} = {}^{0}\overbrace{\overline{w}\,K_0} = {}^{0}\overbrace{\overline{w}\,1} = {}^{-\nu(1-\alpha)w\bar{w}}e$$

$$\text{fund fct }{}_{w}\mathfrak{b} = {}^{0}\overbrace{\overline{w}\,K_0} = {}^{0}\overbrace{\overline{w}\,1} = {}^{-\nu\alpha w\bar{w}}e$$

$$ {}^{z}\overbrace{\overset{1-\alpha}{w}\urcorner} = {}^{z}\mathcal{E}_{w}^{\nu\alpha}\, {}^{w}\mathcal{E}_{w}^{-\nu\alpha}\, {}^{(1-\alpha)\,z+\alpha w}\urcorner $$

$$ s_{0}^{1-\alpha} z = (1-\alpha)\, z $$

$$ s_{w}^{1-\alpha} z = s_{g_{w}0}^{1-\alpha} z = g_{w}\, {}^{1-\alpha}s_{0}\, g_{w}^{-1} z = w + (1-\alpha)(z-w) = (1-\alpha)\, z + \alpha w $$

$$ {}^{z}\overbrace{\mathfrak{t}_{w}^{\nu}\urcorner} = {}^{z+w}\urcorner\, {}^{z}\mathcal{E}_{w}^{-\nu}\, {}^{w}\mathcal{E}_{w}^{-\nu/2} $$

$$ \begin{bmatrix} -\alpha(\gamma-\beta) & -\alpha\beta(1-\gamma) & \alpha(1-\beta)\gamma \\ -\alpha\beta & -(\gamma-\alpha)\beta & \beta\gamma \\ \alpha\gamma & (1-\alpha)\beta\gamma & -(\alpha+\beta-\alpha\beta)\gamma \end{bmatrix} \text{zul} $$

$$ \int_{d\zeta}^{\mathbb{C}^{d}} \mathcal{E}^{\frac{\nu}{(\alpha\beta+\gamma-\alpha-\beta)}} \begin{bmatrix} \xi & \eta & \zeta \end{bmatrix} \begin{bmatrix} -\alpha(\gamma-\beta) & -\alpha\beta(1-\gamma) & \alpha(1-\beta)\gamma \\ -\alpha\beta & -(\gamma-\alpha)\beta & \beta\gamma \\ \alpha\gamma & (1-\alpha)\beta\gamma & -(\alpha+\beta-\alpha\beta)\gamma \end{bmatrix} \begin{bmatrix} \bar{\xi} \\ \bar{\eta} \\ \bar{\zeta} \end{bmatrix} $$

$$\overset{1-\alpha}{\underset{\nu}{\ulcorner\!\xi}}\ \overset{1-\beta}{\underset{\nu}{\ulcorner\!\eta}}\ \underset{\text{product}}{\overset{\text{Moyal}}{=\!=}}\ \overbrace{{}^{\xi}\mathcal{E}_{\xi}^{\alpha(\gamma-\beta)}\ {}^{\eta}\mathcal{E}_{\eta}^{\beta(\gamma-\alpha)}\ {}^{\xi}\mathcal{E}_{\eta}^{\alpha\beta(1-\gamma)}\ {}^{\eta}\mathcal{E}_{\xi}^{\alpha\beta}}^{-\nu/(\alpha\beta+\gamma-\alpha-\beta)}\ \int_{d\zeta}^{\mathbb{C}^d}\overbrace{{}^{\zeta}\mathcal{E}_{\zeta}^{-\gamma(\alpha+\beta-\alpha\beta)}\ {}^{\zeta}\mathcal{E}^{\gamma}_{\bar{\alpha}\xi+\left(1-\bar{\alpha}\right)\bar{\beta}\eta}\ {}^{\alpha(1-\beta)\xi+\beta\eta}\mathcal{E}_{\zeta}^{\gamma}}^{\nu/(\alpha\beta+\gamma-\alpha-\beta)}\ \overset{1-\gamma}{\underset{\nu}{\ulcorner\!\zeta}}\ \urcorner$$

$$\int_{d\zeta}^{\mathbb{C}^d}\overbrace{{}^{\zeta}\mathcal{E}_{\zeta}^{-\gamma(\alpha+\beta-\alpha\beta)}\ {}^{\zeta}\mathcal{E}^{\gamma}_{\bar{\alpha}\xi+\left(1-\bar{\alpha}\right)\bar{\beta}\eta}\ {}^{\alpha(1-\beta)\xi+\beta\eta}\mathcal{E}_{\zeta}^{\gamma}}^{\nu}\ {}^{z}\overbrace{\underset{\nu(\alpha\beta+\gamma-\alpha-\beta)}{\overset{1-\gamma}{\ulcorner\!\zeta}}}\ \urcorner$$

$$=\int_{d\zeta}^{\mathbb{C}^d}{}^{\zeta}\mathcal{E}_{\zeta}^{-\nu\gamma(\alpha+\beta-\alpha\beta)}\ {}^{\zeta}\mathcal{E}^{\nu\gamma}_{\bar{\alpha}\xi+\left(1-\bar{\alpha}\right)\bar{\beta}\eta}\ {}^{\alpha(1-\beta)\xi+\beta\eta}\mathcal{E}_{\zeta}^{\nu\gamma}\ {}^{z}\mathcal{E}_{\zeta}^{\nu(\alpha\beta+\gamma-\alpha-\beta)\gamma}\ {}^{\zeta}\mathcal{E}_{\zeta}^{-\nu(\alpha\beta+\gamma-\alpha-\beta)\gamma}\ {}^{(1-\gamma)z+\gamma\zeta}\urcorner$$

$$=\int_{d\zeta}^{\mathbb{C}^d}{}^{\zeta}\mathcal{E}_{\zeta}^{-\nu\gamma^2}\ {}^{\zeta}\mathcal{E}^{\nu\gamma}_{\bar{\alpha}\xi+\left(1-\bar{\alpha}\right)\bar{\beta}\eta}\ {}^{(\alpha(1-\beta)\xi+\beta\eta+(\alpha\beta+\gamma-\alpha-\beta)z)/\gamma}\mathcal{E}_{\zeta}^{\nu\gamma^2}\ {}^{(1-\gamma)z+\gamma\zeta}\urcorner$$

$$={}^{\alpha(1-\beta)\xi/\gamma+\beta\eta/\gamma+(\alpha\beta+\gamma-\alpha-\beta)z/\gamma}\mathcal{E}^{\nu\gamma}_{\bar{\alpha}\xi+\left(1-\bar{\alpha}\right)\bar{\beta}\eta}\ {}^{(1-\gamma)z+\gamma((\alpha(1-\beta)\xi+\beta\eta+(\alpha\beta+\gamma-\alpha-\beta)z)/\gamma)}\urcorner$$

$$=\overbrace{{}^{\xi}\mathcal{E}_{\xi}^{\alpha(\gamma-\beta)}\ {}^{\eta}\mathcal{E}_{\eta}^{\beta(\gamma-\alpha)}\ {}^{\xi}\mathcal{E}_{\eta}^{\alpha\beta(1-\gamma)}\ {}^{\eta}\mathcal{E}_{\xi}^{\alpha\beta}}^{\nu}\ \overbrace{{}^{\eta}\mathcal{E}_{\eta}^{-\beta}\ {}^{\xi}\mathcal{E}_{\xi}^{-\alpha}\ {}^{z}\mathcal{E}_{\xi}^{\alpha}\ {}^{(1-\alpha)z+\alpha\xi}\mathcal{E}_{\eta}^{\beta}\ {}^{(1-\beta)((1-\alpha)z+\alpha\xi)+\beta\eta}\urcorner}^{\nu(\alpha\beta+\gamma-\alpha-\beta)}$$

$$=\overbrace{{}^{\xi}\mathcal{E}_{\xi}^{\alpha(\gamma-\beta)}\ {}^{\eta}\mathcal{E}_{\eta}^{\beta(\gamma-\alpha)}\ {}^{\xi}\mathcal{E}_{\eta}^{\alpha\beta(1-\gamma)}\ {}^{\eta}\mathcal{E}_{\xi}^{\alpha\beta}}^{\nu}\ {}^{z}\overbrace{\underset{\nu(\alpha\beta+\gamma-\alpha-\beta)}{\overset{1-\alpha}{\ulcorner\!\xi}}\ \underset{\nu(\alpha\beta+\gamma-\alpha-\beta)}{\overset{1-\beta}{\ulcorner\!\eta}}}\ \urcorner$$

$$\mu_{z}^{\nu}=(\nu/\pi)^{d}\,dz\ {}^{z}\mathcal{E}_{z}^{-\nu}$$

$$ {}^{z}\overbrace{\overset{1-\alpha}{\ulcorner\!\zeta}}\ \urcorner = {}^{(1-\alpha)z+\alpha\zeta}\urcorner\ {}^{z-\zeta}\mathcal{E}_{\zeta}^{\nu\alpha}$$

$$ {}^{z}\overbrace{\overset{1-\alpha}{\ulcorner\!\zeta}}\ K_{w}^{\nu}={}^{z}\mathcal{E}_{w}^{\nu(1-\alpha)}\ {}^{z}\mathcal{E}_{\zeta}^{\nu\alpha}\ {}^{\zeta}\mathcal{E}_{w}^{\nu\alpha}\ {}^{\zeta}\mathcal{E}_{\zeta}^{-\nu\alpha}$$

$$\overset{1-\alpha}{\ulcorner\!\zeta}\ K_{w}^{\nu}=K^{\nu}_{\left(1-\bar{\alpha}\right)w+\bar{\alpha}\zeta}\ {}^{\zeta}\mathcal{E}_{w-\zeta}^{\nu\alpha}={}^{z}\mathcal{E}^{\nu}_{\left(1-\bar{\alpha}\right)w+\bar{\alpha}\zeta}\ {}^{\zeta}\mathcal{E}_{w-\zeta}^{\nu\alpha}=\ \mathrm{RHS}$$

$$
{}^{z}\overbrace{\overset{1-\alpha}{\ulcorner\xi}\;\overset{1-\beta}{\ulcorner\eta}\;K_{w}^{\nu}} = {}^{z}\mathcal{E}_{w}^{\nu\,(1-\alpha)\,(1-\beta)}\;{}^{z}\mathcal{E}_{\eta}^{\nu\,(1-\alpha)\,\beta}\;{}^{z}\mathcal{E}_{\xi}^{\nu\alpha}\;{}^{\eta}\mathcal{E}_{w}^{\nu\beta}\;{}^{\eta}\mathcal{E}_{\eta}^{-\nu\beta}\;{}^{\xi}\mathcal{E}_{w}^{\nu\alpha\,(1-\beta)}\;{}^{\xi}\mathcal{E}_{\eta}^{\nu\alpha\beta}\;{}^{\xi}\mathcal{E}_{\xi}^{-\nu\alpha}
$$

$$
\overset{1-\alpha}{\ulcorner\xi}\;\overset{1-\beta}{\ulcorner\eta}\;K_{w}^{\nu} = \overset{1-\alpha}{\ulcorner\xi}\;K^{\nu}_{\left(1-\bar{\beta}\right)w+\bar{\beta}\eta}\;{}^{\eta}\mathcal{E}^{\nu\beta}_{w-\eta} = K^{\nu}_{\left(1-\bar{\alpha}\right)\left(\left(1-\bar{\beta}\right)w+\bar{\beta}\eta\right)+\bar{\alpha}\xi}\;{}^{\eta}\mathcal{E}^{\nu\beta}_{w-\eta}\;{}^{\xi}\mathcal{E}^{\nu\alpha}_{\left(1-\bar{\beta}\right)w+\bar{\beta}\eta-\xi}
$$

$$
{}^{z}\overbrace{\overset{1-\alpha}{\ulcorner\xi}\;\overset{1-\beta}{\ulcorner\eta}\;K_{w}^{\nu}} = {}^{z}\mathcal{E}^{\nu}_{\left(1-\bar{\alpha}\right)\left(\left(1-\bar{\beta}\right)w+\bar{\beta}\eta\right)+\bar{\alpha}\xi}\;{}^{\eta}\mathcal{E}^{\nu\beta}_{w-\eta}\;{}^{\xi}\mathcal{E}^{\nu\alpha}_{\left(1-\bar{\beta}\right)w+\bar{\beta}\eta-\xi} = \text{RHS}
$$

$$\int_{d\zeta}^{\mathbb{C}^d} {}^{\zeta}\mathcal{E}^{\nu\gamma/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\left(1-\bar\alpha\right)\bar\beta\eta+\bar\alpha\xi}\ {}^{\alpha\,(1-\beta)\,\xi+\beta\eta}\mathcal{E}^{\nu\gamma/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\zeta}\ {}^{\zeta}\mathcal{E}^{-\nu\gamma\,(\alpha+\beta-\alpha\beta)\,/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\zeta}\ {}^{z}\overbrace{\overset{1-\gamma}{\ulcorner\zeta}\ K^{\nu}_{w}}$$

$$= \int_{d\zeta}^{\mathbb{C}^d} {}^{\zeta}\mathcal{E}^{\nu\gamma/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\left(1-\bar\alpha\right)\bar\beta\eta+\bar\alpha\xi}\ {}^{\alpha\,(1-\beta)\,\xi+\beta\eta}\mathcal{E}^{\nu\gamma/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\zeta}\ {}^{\zeta}\mathcal{E}^{-\nu\gamma\,(\alpha+\beta-\alpha\beta)\,/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\zeta}\ {}^{z}\mathcal{E}^{\nu\,(1-\gamma)}_{w}\ {}^{z}\mathcal{E}^{\nu\gamma}_{\zeta}\ {}^{\zeta}\mathcal{E}^{\nu\gamma}_{w}\ {}^{\zeta}\mathcal{E}^{-\nu\gamma}_{\zeta}$$

$$= {}^{z}\mathcal{E}^{\nu\,(1-\gamma)}_{w} \int_{d\zeta}^{\mathbb{C}^d} {}^{\zeta}\mathcal{E}^{\nu\gamma/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\left(\bar\alpha\bar\beta+\bar\gamma-\bar\alpha-\bar\beta\right)w+\left(1-\bar\alpha\right)\bar\beta\eta+\bar\alpha\xi}$$

$${}^{(\alpha\beta+\gamma-\alpha-\beta)\,z+\alpha\,(1-\beta)\,\xi+\beta\eta}\mathcal{E}^{\nu\gamma/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\zeta}$$

$${}^{\zeta}\mathcal{E}^{-\nu\gamma\,(\alpha+\beta-\alpha\beta)\,/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\zeta}\ {}^{z}\mathcal{E}^{\nu\,(1-\gamma)}_{w}\ {}^{z}\mathcal{E}^{\nu\gamma}_{\zeta}\ {}^{\zeta}\mathcal{E}^{\nu\gamma}_{w}\ {}^{\zeta}\mathcal{E}^{-\nu\gamma}_{\zeta}$$

$$= {}^{z}\mathcal{E}^{\nu\,(1-\gamma)}_{w} \int_{d\zeta}^{\mathbb{C}^d} {}^{\zeta}\mathcal{E}^{\nu\gamma^2/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\left(\bar\alpha\bar\beta+\bar\gamma-\bar\alpha-\bar\beta\right)/\bar\gamma w+\left(\left(1-\bar\alpha\right)\bar\beta\right)/\bar\gamma\eta+\bar\alpha/\bar\gamma\xi}$$

$${}^{(\alpha\beta+\gamma-\alpha-\beta)\,/\gamma z+\alpha\,(1-\beta)\,/\gamma\xi+\beta/\gamma\eta}\mathcal{E}^{\nu\gamma^2/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\zeta}\ {}^{\zeta}\mathcal{E}^{-\nu\gamma^2/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\zeta}$$

$$= {}^{z}\mathcal{E}^{\nu\,(1-\gamma)}_{w}\ {}^{(\alpha\beta+\gamma-\alpha-\beta)\,/\gamma z+\alpha\,(1-\beta)\,/\gamma\xi+\beta/\gamma\eta}\mathcal{E}^{\nu\gamma^2/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\left(\bar\alpha\bar\beta+\bar\gamma-\bar\alpha-\bar\beta\right)/\bar\gamma w+\left(1-\bar\alpha\right)\bar\beta/\bar\gamma\eta+\bar\alpha/\bar\gamma\xi}$$

$$= {}^{z}\mathcal{E}^{\nu\,(1-\gamma)}_{w}\ c^{\,(\alpha\beta+\gamma-\alpha-\beta)\,z+\alpha\,(1-\beta)\,\xi+\beta\eta}\mathcal{E}^{\nu/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\left(\bar\alpha\bar\beta+\bar\gamma-\bar\alpha-\bar\beta\right)w+\left(1-\bar\alpha\right)\bar\beta\eta+\bar\alpha\xi}$$

$$= {}^{z}\mathcal{E}^{\nu\,(1-\gamma)}_{w}\ {}^{z}\mathcal{E}^{\nu\,(\alpha\beta+\gamma-\alpha-\beta)}_{w}\ {}^{z}\mathcal{E}^{\nu\,(1-\alpha)\,\beta}_{\eta}\ {}^{z}\mathcal{E}^{\nu\alpha}_{\xi}\ {}^{\xi}\mathcal{E}^{\nu\alpha\,(1-\beta)}_{w}\ {}^{\xi}\mathcal{E}^{\nu\alpha\,(1-\beta)\,(1-\alpha)\,\beta/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\eta}\ {}^{\xi}\mathcal{E}^{\nu\alpha\,(1-\beta)\,\alpha/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\xi}$$

$${}^{\eta}\mathcal{E}^{\nu\beta}_{w}\ {}^{\eta}\mathcal{E}^{\nu\beta\,(1-\alpha)\,\beta/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\eta}\ {}^{\eta}\mathcal{E}^{\nu\beta\alpha/\,(\alpha\beta+\gamma-\alpha-\beta)}_{\xi}$$

$$= \overbrace{{}^{\xi}\mathcal{E}^{\alpha\,(\gamma-\beta)}_{\xi}+{}^{\eta}\mathcal{E}^{(\gamma-\alpha)\,\beta}_{\eta}+{}^{\xi}\mathcal{E}^{\alpha\beta\,(1-\gamma)}_{\eta}+{}^{\eta}\mathcal{E}^{\alpha\beta}_{\xi}}^{\nu/\,(\alpha\beta+\gamma-\alpha-\beta)}\ {}^{z}\mathcal{E}^{\nu\,(1-\alpha)\,(1-\beta)}_{w}\ {}^{z}\mathcal{E}^{\nu\,(1-\alpha)\,\beta}_{\eta}\ {}^{z}\mathcal{E}^{\nu\alpha}_{\xi}\ {}^{\eta}\mathcal{E}^{\nu\beta}_{w}\ {}^{\eta}\mathcal{E}^{-\nu\beta}_{\eta}\ {}^{\xi}\mathcal{E}^{\nu\alpha\,(1-\beta)}_{w}\ {}^{\xi}\mathcal{E}^{\nu\alpha\beta}_{\eta}\ {}^{\xi}\mathcal{E}^{-\nu\alpha}_{\xi}$$

$$\text{Weyl}\ \overset{-1}{\ulcorner\xi}\ \overset{-1}{\ulcorner\eta} = \frac{\overbrace{2\nu}}{\pi}^{d} \int_{d\zeta}^{\mathbb{C}^d} \mathcal{E}^{2\nu\,((\xi|\eta)\,-\,(\eta|\xi))}\ \mathcal{E}^{2\nu\,(\zeta|\xi-\eta)}\ \mathcal{E}^{2\nu\,(\eta-\xi|\zeta)}\ \overset{-1}{\ulcorner\zeta}$$