

$$D_{\Delta_\omega}^2 \tilde{S}_j \Delta_\omega \mathbb{C} \ni \zeta|z \mathfrak{q}$$

$$\mathfrak{q} \times \mathfrak{q} = \int_{dz}^D {}^z \Delta_z^{\nu-p} {}^z \mathfrak{q} \times_{S_j} \underbrace{{}^z B_z \times {}^z \mathfrak{q}} = \int_{dz}^D {}^z \Delta_z^{\nu-p} \int_{du}^{S_j} u|z \bar{\mathfrak{q}} u^z B_z |z \mathfrak{q}$$

$$\zeta|z \overline{\mathcal{J}\mathfrak{q}} = \zeta \overline{E_\partial^{\ell \cdot \ell 0 \cdot 0} \mathfrak{q}} = \overset{0}{\zeta E_\partial^{\ell \cdot \ell 0 \cdot 0} \mathfrak{q}}_{\ell j^-} = \underbrace{E_\zeta^{\ell \cdot \ell 0 \cdot 0}} \times_{\ell j^-} {}^z \mathfrak{q}$$

$$\zeta|0 \overline{\mathcal{J}\mathfrak{q}} = E_\zeta^{\ell \cdot \ell 0 \cdot 0} \times \mathfrak{q}$$

$$\zeta \overline{E_\partial^\mu \mathfrak{q}} = \overset{0}{\mathfrak{t}_z \times \zeta E_\partial^\mu \mathfrak{q}} \stackrel{\text{const}}{\text{coeff}} \overset{0}{\zeta E_\partial^\mu \mathfrak{t}_z \times \mathfrak{q}} = E_\zeta^\mu \times \overset{0}{\mathfrak{t}_z \times \mathfrak{q}} = E_\zeta^\mu \times \mathfrak{m}_z \mathfrak{q}$$

$$\begin{cases} \zeta \overline{g \times \mathfrak{q}} = {}^z g^{-\nu} {}^z g \mathfrak{q} & \overset{0}{\mathfrak{g}_z \times \mathfrak{q}} = \overset{0}{\mathfrak{g}_z^{-\nu} \mathfrak{g}_z \mathfrak{q}} = {}^z \Delta_z^{-\nu/2} \mathfrak{q} \\ \zeta|z \overline{g \times \mathfrak{q}} = {}^z g^{-\nu} \zeta_K^z |z g \mathfrak{q} & \zeta|0 \overline{\mathfrak{g}_z \times \mathfrak{q}} = \overset{0}{\mathfrak{g}_z^{-\nu} \zeta_K^z |z \mathfrak{g}_z \mathfrak{q}} = {}^z \Delta_z^{-\nu/2} \zeta_K^z |z \mathfrak{q} \end{cases}$$

$$D_{\Delta_\omega}^2 \mathbb{C} \times \tilde{S}_j \Delta_\omega \mathbb{C} \xleftarrow{\mathcal{J}} D_{\Delta_\omega}^2 \mathbb{C}$$

$$\mathcal{J} \overline{g \times \mathfrak{q}} = \overline{g \times \mathcal{J}\mathfrak{q}}$$

$$\zeta|0 \overline{\mathcal{J} g \times \mathfrak{q}} = \zeta|0 \overline{g \times \mathcal{J}\mathfrak{q}} \Rightarrow \zeta|z \overline{\mathcal{J} g \times \mathfrak{q}} = \zeta|z \overline{g \times \mathcal{J}\mathfrak{q}}$$

$${}^z \Delta_z^{-\nu/2} \zeta_K^z |z \overline{\mathcal{J} g \times \mathfrak{q}} = \zeta|0 \overline{\mathfrak{g}_z \times \mathcal{J} g \times \mathfrak{q}} \stackrel{\text{Vor}}{=} \zeta|0 \overline{\mathcal{J} \mathfrak{g}_z \times \mathfrak{g} \times \mathfrak{q}} = \zeta|0 \overline{\mathcal{J} \mathfrak{g}_z \mathfrak{g} \times \mathfrak{q}}$$

$$\stackrel{\text{Vor}}{=} \zeta|0 \overline{\mathfrak{g}_z \mathfrak{g} \times \mathcal{J}\mathfrak{q}} = \zeta|0 \overline{\mathfrak{g}_z \times \mathfrak{g} \times \mathcal{J}\mathfrak{q}} = {}^z \Delta_z^{-\nu/2} \zeta^z B_z^{1/2} |z \overline{g \times \mathcal{J}\mathfrak{q}}$$

$$\begin{aligned} \zeta^{|0} \overbrace{\mathfrak{g}_z \times \mathcal{J}\gamma} &= {}_T \mathfrak{g}_z^{-\nu} \zeta_K^0 \mathfrak{g}_z^{|\mathfrak{g}_z} \overbrace{\mathcal{J}\gamma} = {}^z \Delta_z^{-\nu/2} \zeta_K^{zG_z^{1/2}|z} \overbrace{\mathcal{J}\gamma} = {}^z \Delta_z^{-\nu/2} \overbrace{\zeta_K^{zG_z^{1/2}} E_{\partial}^{\ell \cdot \ell 0 \cdot 0} \gamma} \\ z\gamma &= z_1 \gamma_1 z_2 \gamma_2 \Rightarrow \overbrace{\zeta_K^{zG_z^{1/2}} E_{\partial}^{\ell \cdot \ell 0 \cdot 0} \gamma} = \overbrace{\zeta_K^{z_1 G_{z_1}^{1/2}} E_{\partial}^{\ell \cdot \ell} \gamma_1 z_2 \gamma_2} \end{aligned}$$

$$\sum_m \frac{L^m}{m!} \overbrace{z\gamma} \stackrel{\text{Tay}}{=} L+z\gamma = L+z_1+z_2\gamma = L+z_1\gamma_1 z_2\gamma_2 \stackrel{\text{Tay}}{=} \sum_m \frac{L^m}{m!} \overbrace{z_1\gamma_1 z_2\gamma_2} \Rightarrow L^m \overbrace{z\gamma} = L^m \overbrace{z_1\gamma_1 z_2\gamma_2}$$

$$\begin{aligned} \zeta^{|0} \overbrace{\mathcal{J}\mathfrak{g}_z \times \gamma} &= \underbrace{E_{\zeta}^{\ell \cdot \ell 0 \cdot 0}} \times \underbrace{\mathfrak{g}_z \times \gamma} = \underbrace{E_{\zeta}^{\ell \cdot \ell 0 \cdot 0}} \times \underbrace{{}_T \mathfrak{g}_z^{-\nu} \gamma} = {}^z \Delta_z^{-\nu/2} \underbrace{E_{\zeta}^{\ell \cdot \ell 0 \cdot 0}} \times \underbrace{\Delta_{-z}^{\nu} \mathfrak{g}_z \gamma} \\ z\gamma &= z_1 \gamma_1 z_2 \gamma_2 \Rightarrow \underbrace{E_{\zeta}^{\ell \cdot \ell 0 \cdot 0}} \times \underbrace{\Delta_{-z}^{\nu} \mathfrak{g}_z \gamma} = \underbrace{E_{\zeta}^{\ell \cdot \ell}} \times \underbrace{\Delta_{-z_1}^{\nu} \mathfrak{g}_{z_1} \gamma_1 z_2 \gamma_2} \end{aligned}$$

$$\begin{aligned} \sum_m \frac{L^m}{m!} \overbrace{\Delta_{-z}^{\nu} \mathfrak{g}_z \gamma} \stackrel{\text{Tay}}{=} L \Delta_{-z}^{\nu} \mathfrak{g}_z \gamma &= L \Delta_{-z_1}^{\nu} \mathfrak{g}_{z_1} z_2 \gamma = L \Delta_{-z_1}^{\nu} \mathfrak{g}_{z_1} \gamma_1 z_2 \gamma_2 \stackrel{\text{Tay}}{=} \sum_m \frac{L^m}{m!} \overbrace{\Delta_{-z_1}^{\nu} \mathfrak{g}_{z_1} \gamma_1 z_2 \gamma_2} \\ &\Rightarrow L^m \overbrace{\Delta_{-z}^{\nu} \mathfrak{g}_z \gamma} = L^m \overbrace{\Delta_{-z_1}^{\nu} \mathfrak{g}_{z_1} \gamma_1 z_2 \gamma_2} \end{aligned}$$

$$\overbrace{\zeta E_{\partial}^{\ell \cdot \ell} \Delta_{-z_1}^{\nu} \mathfrak{g}_{z_1} \gamma_1} = \overbrace{\zeta_K^{z_1 G_{z_1}^{1/2}} E_{\partial}^{\ell \cdot \ell} \gamma_1}$$

$$\zeta E_{\partial}^{\ell \cdot \ell} = \zeta N_u^{\ell} \partial_{N_u}^{\ell}$$

$$\zeta_K^{z_1 G_{z_1}^{1/2}} E_{\partial}^{\ell \cdot \ell} = \zeta_K^{z_1 G_{z_1}^{1/2}} N_u^{\ell} \partial_{N_u}^{\ell} = \zeta N_u^{\ell} \zeta_K^{z_1 G_{z_1}^{1/2}} N_u^{\ell} \partial_{N_u}^{\ell} = \zeta N_u^{\ell} z_1 \Delta_{z_1}^{\ell} \partial_{N_u}^{\ell}$$

$$\Rightarrow \overbrace{\zeta E_{\partial}^{\ell \cdot \ell} \Delta_{-z_1}^{\nu} \mathfrak{g}_{z_1} \gamma_1} = \zeta N_u^{\ell} \overbrace{\partial_{N_u}^{\ell} \Delta_{-z_1}^{\nu} \mathfrak{g}_{z_1} \gamma_1} = \zeta N_u^{\ell} z_1 \Delta_{z_1}^{\nu/2} \overbrace{\partial_{N_u}^{\ell} \mathfrak{g}_{z_1} \gamma_1} \stackrel{\text{ARA}}{=} \zeta N_u^{\ell} z_1 \Delta_{z_1}^{\nu/2} \overbrace{\mathfrak{g}_{z_1} \times \partial_{N_u}^{\ell} \gamma_1}^{p_1^{-\nu}}$$

$$= \zeta N_u^{\ell} z_1 \Delta_{z_1}^{\nu/2} z_1 \Delta_{z_1}^{(\nu-p_1)/2} \overbrace{\partial_{N_u}^{\ell} \gamma_1} = \zeta N_u^{\ell} z_1 \Delta_{z_1}^{\nu-p_1/2} \overbrace{\partial_{N_u}^{\ell} \gamma_1}^{z_1}$$

$$\overbrace{\zeta_K^{z_1 G_{z_1}^{1/2}} E_{\partial}^{\ell \cdot \ell} \gamma_1} = \zeta N_u^{\ell} z_1 \Delta_{z_1}^{\ell} \overbrace{\partial_{N_u}^{\ell} \gamma_1}^{z_1}$$

$$\Rightarrow \ell = \nu - p_1/2 \Rightarrow \nu = p_1/2 + \ell = 1 + (j-1)a/2 + \ell$$

$$\bigwedge_{\ell}^r D_{\triangleleft}^2 \widetilde{S}_{j_{\triangleleft}^{\ell}}^{\overbrace{1+(j-1)a/2+\ell}} \mathcal{C} \xleftarrow{\mathcal{J}} D_{\triangleleft}^2 \mathbb{C}^{1+(j-1)a/2-\ell} = \sum_{\mu_{\ell} > m} Z_{\triangleleft}^{\mu} \mathbb{C}$$

$${}^{u|z} \overline{\mathcal{J}\gamma} = {}^z \overline{\partial_{N_u}^{\ell} \gamma}$$

$$\Rightarrow {}^{\zeta|z} \overline{\mathcal{J}\gamma} = {}^{uh|z} \overline{\mathcal{J}\gamma} = {}^{u|z} \overline{\mathcal{J}\gamma} {}^{uh} N_u^{\ell} = {}^z \overline{\partial_{N_u}^{\ell} \gamma} {}^{uh} N_u^{\ell} = {}^z \overline{\partial_{N_u {}^{uh} \bar{N}_u}^{\ell} \gamma} = {}^z \overline{\partial_{N_u^{\ell} {}^{uh} \bar{N}_u^{\ell}} \gamma}$$

$${}^x N_u^{\ell} {}^{uh} \bar{N}_u^{\ell} = {}^x E_{uh}^{\ell \cdot \ell 0 \cdot 0} = {}^x E_{\zeta}^{\ell \cdot \ell 0 \cdot 0} \Rightarrow \partial_{N_u {}^{uh} \bar{N}_u}^{\ell} = \partial_{E_{\zeta}^{\ell \cdot \ell 0 \cdot 0}} = \zeta E_{\partial}^{\ell \cdot \ell 0 \cdot 0}$$

$${}^x E_{\zeta h}^{\ell \cdot \ell 0 \cdot 0} = c {}^x N_u^{\ell} \zeta h \bar{N}_u^{\ell} = c {}^x N_u^{\ell} \zeta \bar{N}_u^{\ell} {}^{uh} \bar{N}_u^{\ell} = {}^x E_{\zeta}^{\ell \cdot \ell 0 \cdot 0} {}^{uh} \bar{N}_u^{\ell} \Rightarrow \zeta h E_{\partial}^{\ell \cdot \ell 0 \cdot 0} = \zeta E_{\partial}^{\ell \cdot \ell 0 \cdot 0} {}^{uh} N_u^{\ell}$$

$$\zeta h |z \overline{\mathcal{J}\gamma} = {}^z \overline{\zeta h E_{\partial}^{\ell \cdot \ell 0 \cdot 0} \gamma} = {}^z \overline{\zeta E_{\partial}^{\ell \cdot \ell 0 \cdot 0} \gamma} {}^{uh} N_u^{\ell} = {}^{\zeta|z} \overline{\mathcal{J}\gamma} {}^{uh} N_u^{\ell}$$