

$$\mathbb{C} \begin{array}{c} \nearrow \\ \searrow \\ \text{m} \end{array} X_{\mathbb{C}}^+ \ni \psi$$

$$\mathbb{C} \begin{array}{c} \nearrow \\ \searrow \\ -\text{m} \end{array} X_{\vartheta}^+ \ni \varphi$$

$$\# \psi \in X_{\mathbb{C}}^{\mathbb{C}} \begin{array}{c} \nearrow \\ \searrow \\ \omega \end{array} \begin{array}{c} \nearrow \\ \searrow \\ \lambda^* \end{array} \mathbb{C}$$

$$\vartheta \varphi \in X_{\mathbb{C}}^{\mathbb{C}} \begin{array}{c} \nearrow \\ \searrow \\ \vartheta \end{array} \mathbb{C}$$

$${}^u_{\#} \psi = -u\xi e \psi_{\xi} \int_{X_{\mathbb{C}}^+} d\xi$$

$${}^u_{\#} \mathfrak{L} = -u\xi e \mathfrak{L}_{\xi} \int_{X_{\mathbb{C}}^+} d\xi$$

$$-u\xi e \frac{N_{\mathbb{C}}^{\#} a - d_1^{\#}/r}{\mathbb{C}_{\mathbb{R}}^{\#} \xi} \int_{X_{\mathbb{C}}^+} d\xi = \Gamma_a^{\#} z_{\mathbb{C}_{\mathbb{R}}^{\#} N}^{-a^{\#}}$$

$$a^{\#} = (a_r \cdots a_1)$$

$$\int_{dz/\pi^d}^{X_C^C} z + z^* \frac{1}{c_{\mathbb{R}} N} \alpha - 2d/r \overline{\varphi_\xi}^2 = \overline{\varphi_\xi}^2 \Gamma_{\alpha - d/r} \frac{N^\#}{c_{\mathbb{R}}} \xi^{-\alpha^\# + d^\#/r}$$

$$\begin{aligned} \text{LHS} &= 2^d \int_{dx}^{X_C} \frac{2x}{c_{\mathbb{R}} N} \alpha - 2d/r \int_{dy/(2\pi)^d}^{iX} \overline{\varphi_\xi}^2 = 2^d \int_{dx}^{X_C} \frac{2x}{c_{\mathbb{R}} N} \alpha - 2d/r \int_{dy/(2\pi)^d}^{i\mathbb{I}} x - y \mathbf{e}_{\xi_1}^{-1} \overline{\varphi_{\xi_1}} \int_{X_C^+}^{d\xi_1} x + y \mathbf{e}_{\xi_2}^{-1} \varphi_{\xi_2} \int_{X_C^+}^{\xi_2} \\ &= 2^d \int_{dx}^{X_C} \frac{2x}{c_{\mathbb{R}} N} \alpha - 2d/r \int_{X_C^+}^{d\xi} 2x \mathbf{e}_\xi^{-1} \overline{\varphi_\xi}^2 = 2^d \int_{dx}^{X_C} \frac{2x}{c_{\mathbb{R}} N} \alpha - 2d/r \int_{X_C^+}^{d\xi} -\dot{x} \xi e \overline{\varphi_\xi}^2 = \text{RHS} \end{aligned}$$

$$x + iy \varphi = x \xi^\nu e^{iy} \mathbf{e}_\xi \varphi_\xi \int_{d\xi}^{X_\vartheta^+}$$

$$\int_{dz/\pi^n}^{\Pi} \frac{1}{\vartheta} \overline{\varphi_\xi}^2 z + z^* \frac{1}{c_{\mathbb{R}} N} \nu^\# - p = \Gamma_{\nu^\# - p/2} \overline{\varphi_\xi}^2 \frac{N^\#}{c_{\mathbb{R}} \xi^\nu} \int_{d\xi}^{X_\vartheta^+}$$

$$\text{LHS} = \int_{dx} \frac{2x}{c_{\mathbb{R}} N} \nu^\# - p \int_{dy}^{\mathbb{I}} x \xi^\nu e^{iy} \mathbf{e}_\xi \varphi_\xi \int_{d\xi}^{X_\vartheta^+} = \int_{dx} \frac{2x}{c_{\mathbb{R}} N} \nu^\# - p \int_{X_\vartheta^+}^{d\xi} 2x \xi^\nu e \overline{\varphi_\xi}^2 = \int_{dt}^{\mathbb{I}} \frac{t}{c_{\mathbb{R}} N} \nu^\# - p \int_{X_\vartheta^+}^{d\xi} t \xi^\nu e \overline{\varphi_\xi}^2$$