

$$J \in \underset{\mathbb{C}\mathbb{Z}}{\mathbb{Z}} \int_{\infty}^{\infty} \mathbb{K} \xrightarrow{\text{restr}} \underset{\mathbb{R}\mathbb{Z}}{\mathbb{Z}} \int_{\infty}^{\infty} \mathbb{K} \ni J$$

$$\underset{\mathbb{C}\mathbb{Z}}{\mathbb{C}} \int I = \underset{\mathbb{R}\mathbb{Z}}{\mathbb{R}} \int J$$

$$x \int_{\mathbb{C}\mathbb{Z}} J = \int_{\mathbb{C}\mathbb{Z}} x \int_{\mathbb{R}\mathbb{Z}} z J$$

$$\underset{\mathbb{R}\mathbb{Z}}{\mathbb{C}} \int I = \int_{\mathbb{R}\mathbb{Z}} x \int_{\mathbb{R}\mathbb{Z}} \overline{x}$$

$$\int_{\mathbb{C}\mathbb{Z}} z J \underset{\mathbb{C}\mathbb{Z}}{\mathbb{C}} \int I = \underset{\mathbb{C}\mathbb{Z}}{\mathbb{C}} \int I = \underset{\mathbb{R}\mathbb{Z}}{\mathbb{R}} \int J = \int_{\mathbb{R}\mathbb{Z}} x \int_{\mathbb{R}\mathbb{Z}} \overline{x} = \int_{\mathbb{R}\mathbb{Z}} \int_{\mathbb{C}\mathbb{Z}} x \int_{\mathbb{R}\mathbb{Z}} z J \overline{x} = \int_{\mathbb{C}\mathbb{Z}} z J \int_{\mathbb{R}\mathbb{Z}} x \int_{\mathbb{R}\mathbb{Z}} \overline{x}$$

$$x \int_{\mathbb{R}\mathbb{Z}} z = x g \int_{\mathbb{R}\mathbb{Z}} z g$$

$$\int_{\mathbb{R}\mathbb{Z}} x \int_{\mathbb{R}\mathbb{Z}} z \overline{x g} = \int_{\mathbb{R}\mathbb{Z}} x \int_{\mathbb{R}\mathbb{Z}} z \overline{g^{-1\nu}} \overline{x} = \overline{g^{-1\nu}} \underset{\mathbb{C}\mathbb{Z}}{\mathbb{C}} \int I = \overline{g^{-1\nu}} \underset{\mathbb{C}\mathbb{Z}}{\mathbb{C}} \int g^{\nu} \underbrace{\overline{g^{-1\nu}} I}_{=I} = \overline{z g} I = \int_{\mathbb{R}\mathbb{Z}} x \int_{\mathbb{R}\mathbb{Z}} z g \overline{x} \stackrel{\text{inv}}{=} \int_{\mathbb{R}\mathbb{Z}} x g \int_{\mathbb{R}\mathbb{Z}} z g \overline{x g}$$

$$\prod_{ij} i^z \mathfrak{L}_{\mathbb{C}\mathbb{V}_{jz}}^{\alpha_{ij}-\nu} = \prod_{ij} i^z \mathfrak{L}_{\mathbb{C}\mathbb{V}_{jz}}^{\alpha_{ij}}$$

$$\text{RHS} = \prod_{ij} \left( \overline{\det i^z \mathfrak{L}_{\mathbb{C}\mathbb{V}_{jz}}^{\alpha_{ij}-\nu}} \overline{\det j^z \mathfrak{L}_{\mathbb{C}\mathbb{V}_{jz}}^{\alpha_{ij}}} \right)$$

$$\prod_{ij} \left( \overline{\det i^z \mathfrak{L}_{\mathbb{C}\mathbb{V}_{jz}}^{\alpha_{ij}}} \right) \prod_{ij} \left( i^z \mathfrak{L}_{\mathbb{C}\mathbb{V}_{jz}}^{\alpha_{ij}-\nu} \right) \prod_{ij} \left( \overline{\det j^z \mathfrak{L}_{\mathbb{C}\mathbb{V}_{jz}}^{\alpha_{ij}}} \right)$$

$$=$$

$$\int_{0|\infty}^{dx/x} {}^x\mathfrak{R}_w \frac{x^{\nu/2}}{1+x}{}^\nu = \frac{\overline{w+\bar{w}}{}^\nu}{\overline{1+\bar{w}}{}^\nu w^{\nu/2}}$$