

$$\sum_{\mathbb{J}} \mathfrak{r}^{\mathbb{J}} \stackrel{\text{Pois}}{=} \sum_{\Gamma}^{\frac{2\pi i \mathbb{Z}}{d}} \mathfrak{r}^{\sharp} = \sum_{\Gamma}^{\frac{2\pi i \mathbb{Z}}{d}} \int_{\mathfrak{d}}^{d_{\mathbb{R}}} \Gamma^{\mathfrak{d}} \mathfrak{e} \mathfrak{r}^{\mathfrak{d}} = \sum_{\mathfrak{r}}^{\mathbb{Z}_d} \int_{\mathfrak{d}}^{d_{\mathbb{R}}} 2\pi i \mathfrak{r}^{\mathfrak{d}} \mathfrak{e} \mathfrak{r}^{\mathfrak{d}}$$

$$\mathfrak{r}^{\mathbb{J}} = \sum_{\mathbb{J}}^{d_{\mathbb{Z}}} \mathfrak{r}^{\mathbb{J}+\mathbb{J}} \stackrel{\text{per}}{\Rightarrow} \mathfrak{r}^{\mathbb{J}} = \sum_{\Gamma}^{\frac{2\pi i \mathbb{Z}}{d}} \Gamma^{\mathbb{J}} \mathfrak{e} \mathfrak{r}^{\sharp}$$

$$\mathfrak{r}^{\sharp} = \int_{\mathbb{J}}^{d_{\mathbb{I}}} \Gamma^{\mathbb{J}} \mathfrak{e} \mathfrak{r}^{\mathbb{J}} = \int_{\mathbb{J}}^{d_{\mathbb{I}}} \Gamma^{\mathbb{J}} \mathfrak{e} \sum_{\mathbb{J}}^{d_{\mathbb{Z}}} \mathfrak{r}^{\mathbb{J}+\mathbb{J}} = \sum_{\mathbb{J}}^{d_{\mathbb{Z}}} \int_{\mathbb{J}}^{d_{\mathbb{I}}} \Gamma^{\mathbb{J}} \mathfrak{e} \mathfrak{r}^{\mathbb{J}+\mathbb{J}}$$

$$= \sum_{\mathbb{J}}^{d_{\mathbb{Z}}} \int_{\mathbb{J}}^{d_{\mathbb{I}}} \Gamma^{(\mathbb{J}+\mathbb{J})} \mathfrak{e} \mathfrak{r}^{\mathbb{J}+\mathbb{J}} = \sum_{\mathbb{J}}^{d_{\mathbb{Z}}} \int_{\mathfrak{d}}^{\mathbb{J}+d_{\mathbb{I}}} \Gamma^{\mathfrak{d}} \mathfrak{e} \mathfrak{r}^{\mathfrak{d}} = \int_{\mathfrak{d}}^{d_{\mathbb{R}}} \Gamma^{\mathfrak{d}} \mathfrak{e} \mathfrak{r}^{\mathfrak{d}}$$

$$\Rightarrow \text{LHS} = \mathfrak{r}^0 = \sum_{\Gamma}^{\frac{2\pi i \mathbb{Z}}{d}} \mathfrak{r}^{\sharp} = \text{RHS}$$