

$$\underbrace{\frac{a}{c} \mid \frac{b}{d}}_{\times \mathfrak{q}} = \overbrace{\frac{-1}{a+uc} b+ud}^{-1} \mathfrak{q}^{a+uc} \det^{\sigma-n} \det^{a+uc} \overline{\det}^{\tau-n}$$

$$\mathfrak{q} \times \mathfrak{q} = \int_{du}^{S_{\mathbb{R}}} \int_{dv}^{S_{\mathbb{R}}} u \overline{\mathfrak{q}}^{1-uv} \Delta^{-\sigma} \overline{\Delta}^{-\tau} v \mathfrak{q} = \int_{du}^{S_{\mathbb{R}}} \int_{dv}^{S_{\mathbb{R}}} u \overline{\mathfrak{q}}^u \Delta_v^{-\sigma} \overline{\Delta}_v^{-\tau} v \mathfrak{q}$$

positive

$$\{0 \dots r-1\} \cup \underbrace{r-1}_{\infty}$$