

$$\frac{\Gamma_{\varkappa+d/r}^X \Gamma_{\beta+d/r}^X}{\Gamma_{\varkappa+\beta+2d/r}^X} \stackrel{\text{FK}}{130} \int_{dx}^{0\overline{X}e} x \Delta^{\varkappa} e^{-x} \Delta^{\beta}$$

$$\frac{(2\pi)^{d-r}}{\Gamma_{d/r}^X} \frac{\Gamma_{1+a/2}^r}{\Gamma_{1+ra/2}} \int_{dx_i}^{0\overline{1}1} x \Phi^{\varkappa} \prod_i x_i^{\alpha} \overbrace{1-x_i}^{\beta} \prod_{i<j} \overbrace{x_j-x_i}^a = \frac{\Gamma_{\varkappa+\alpha+d/r}^X \Gamma_{\beta+d/r}^X}{\Gamma_{\varkappa+\alpha+\beta+2d/r}^X}$$

$$x \Delta^{\alpha} = x_1^{\alpha_1 - \alpha_2} (x_1 x_2)^{\alpha_3 - \alpha_2} \cdots (x_1 x_2 \cdots x_r)^{\alpha_r} = \prod_j x_j^{\alpha_j}$$

$$e^{-x} \Delta^{\beta} = \prod_j \overbrace{1-x_i}^{\beta_i}$$

$$\mathfrak{R} = \int_{dx}^{0\overline{X}e} x \Delta^{\varkappa+\alpha} e^{-x} \Delta^{\beta} = \int_{dx}^{0\overline{X}e} x \Delta^{\varkappa} x \Delta^{\alpha} e^{-x} \Delta^{\beta} = \int_{dx}^{0\overline{X}e} \int_{dh}^{K \cap L} x h \Delta^{\varkappa} x \Delta^{\alpha} e^{-x} \Delta^{\beta} \stackrel{\text{FK}}{228} \int_{dx}^{0\overline{X}e} x \Phi^{\varkappa} x \Delta^{\alpha} e^{-x} \Delta^{\beta} = \mathcal{L}$$

$$\int_{dx}^{0\overline{1}1} H_{\varkappa}^z \bar{G} \prod_j x_j^t \overbrace{1-x_j}^s \prod_{i<j} \overbrace{x_i-x_j}^a = \frac{\Gamma_{\varkappa+d/r}^X \Gamma_{s+d/r}^X}{\Gamma_{\varkappa+t+s+2d/r}^X}$$