$$\nu > p - 1$$

$$D = T(\Omega) \subset X^{\mathbb{C}}$$

$$d\mu_\nu(z) = \frac{1}{c_\nu} \frac{d\bar{z}dz}{(2\pi i)^d} \Delta\left(\frac{z+z^*}{2}\right)^{\nu - p}$$

matrix

$$d\mu_\nu(z) = \frac{1}{c_\nu} \frac{d\bar{z}dz}{(2\pi i)^{r^2}} \det\left(\frac{z+z^*}{2}\right)^{\nu - 2r}$$

$$H_\nu^2(D) = \frac{\daleth \in \mathcal{O}(D)}{\int^D \frac{d\bar{z}dz}{(2\pi i)^d} \Delta\left(\frac{z+z^*}{2}\right)^{\nu - p} \left|\daleth\right|_z^2 < +\infty} \text{ weighted Bergman}$$

$$\text{repro } K_\nu(z{:}w) = \Delta\left(\frac{z+w^*}{2}\right)^{-\nu}$$

$$^z\daleth = \frac{1}{c_\nu} \int_{d\bar{z}\,dz/(2\pi i)^d}^{D} \Delta\left(\frac{z+z^*}{2}\right)^{\nu - p} \Delta\left(\frac{z+w^*}{2}\right)^{-\nu} {}^w\daleth$$

$$H_p^2(D) = \frac{\daleth \in \mathcal{O}(D)}{\int^D \frac{d\bar{z}dz}{(2\pi i)^d} \left|\daleth\right|_z^2 < +\infty} \text{ Bergman}$$

$$K_p(z{:}w) = \Delta\left(\frac{z+w^*}{2}\right)^{-p}$$

$$\text{action } U_\nu\left(g^{-1}\right)\psi(z) = \left(\det g'(z)\right)^{\nu/p} \psi(g(z))$$