$$\Delta = \underbrace{1 + z\bar{z}}^{2} \, \partial_z \, \bar{\partial}_z$$

$$\sigma^2 = 1$$

$${}_z\mathsf{J} = \frac{1 + z\bar{z}}{\underbrace{z + \sigma}\,\underbrace{\bar{z} - \sigma}}$$

$$\Delta \, \mathsf{J}^{\alpha} = \alpha \underbrace{1 - \alpha} \, \mathsf{J}^{\alpha}$$

$$\partial_z \, \mathsf{J} = \frac{\sigma}{\underbrace{z + \sigma}^{2}}$$

$$\bar{\partial}_z \, \mathsf{J} = \frac{-\sigma}{\underbrace{\bar{z} - \sigma}^{2}}$$

$$\Delta \, \mathsf{J}^{\alpha} = \underbrace{1 + z\bar{z}}^{2} \, \partial_z \, \bar{\partial}_z \, \mathsf{J}^{\alpha} = \underbrace{1 + z\bar{z}}^{2} \, \partial_z \, \alpha \, \mathsf{J}^{\alpha - 1} \, \frac{-\sigma}{\underbrace{\bar{z} - \sigma}^{2}} = -\alpha\sigma \, \overbrace{\frac{1 + z\bar{z}}{\bar{z} - \sigma}}^{2} \, \partial_z \, \mathsf{J}^{\alpha - 1}$$

$$= -\alpha\sigma \, \overbrace{\frac{1 + z\bar{z}}{\bar{z} - \sigma}}^{2} \, \underbrace{\alpha - 1} \, \mathsf{J}^{\alpha - 2} \, \frac{\sigma}{\underbrace{z + \sigma}^{2}} = \alpha \underbrace{1 - \alpha} \, \overbrace{\frac{1 + z\bar{z}}{\underbrace{z + \sigma}\,\underbrace{\bar{z} - \sigma}}}^{2} \, \mathsf{J}^{\alpha - 2} = \alpha \underbrace{1 - \alpha} \, \mathsf{J}^{\alpha}$$