

$\mathcal{L} = \log \mathcal{K}$ Kaehler potential

$$-i\omega = \partial \bar{\partial} \mathcal{L} = \frac{\partial^2 \mathcal{L}}{\partial z^i \partial \bar{z}^j} dz^i \ast d\bar{z}^j = \frac{\partial^2 \mathcal{L}}{\partial z^i \partial \bar{z}^i} dz^i \ast d\bar{z}^i$$

complex bicotangent field

$$\left(\frac{\partial^2 \mathcal{L}}{\partial z^i \partial \bar{z}^i} \right)^{\ell k} \text{ complex bitangent field}$$

$$-iJ \ast J = \left(\frac{\partial^2 \mathcal{L}}{\partial z^i \partial \bar{z}^i} \right)^{kl} \underbrace{\frac{\partial J}{\partial z^k} \frac{\partial J}{\partial \bar{z}^l} - \frac{\partial J}{\partial z^l} \frac{\partial J}{\partial \bar{z}^k}}_{\text{sep of variables}}$$

sep of variables

$$J \ast = J \ast \bar{J} = \bar{J}$$

$$J \ast J = J \downarrow J \ast \bar{J} = J \bar{J}$$

$$J \ast = \sum_{\alpha} \frac{1}{\alpha!} \bar{\partial}^{\alpha} J \overline{z \ast - \bar{z}}$$

$$z^k \ast = z^k$$

$$\frac{\partial \mathcal{L}}{\partial z^k} \ast = z \frac{\partial}{\partial z^k} + \frac{\partial \mathcal{L}}{\partial z^k}$$

$$\bar{z}^l \ast - \bar{z}^l \ast z \left(\frac{\partial^2 \mathcal{L}}{\partial z^i \partial \bar{z}^i} \right)^{\ell k} \frac{\partial}{\partial z^k}$$