$$\mathcal{L}/\sqrt{-g} = R/4 - \frac{1}{2}\,\partial_\mu\,\phi^i\,g_{ij}\,(\phi)\,\partial_\nu\,\phi^j - \frac{1}{4}\,\underline{\underline{A}}^{\mu\nu I}\,m_{IJ}\,(\phi)\,\underline{\underline{A}}^{J}_{\mu\nu} - \frac{1}{8}\,\underline{\underline{A}}^{I}_{\mu\nu}\,a_{IJ}\,(\phi)\,\varepsilon^{\mu\nu\sigma\tau}\,\underline{\underline{A}}^{J}_{\sigma\tau}$$

$$\left(\phi^i\right) = \phi \in \mathcal{M} \xrightarrow{m_{IJ} + i a_{IJ}} \mathcal{H}^+_k\,(\mathbb{C})$$

$$\text{metric } g_{ij}\,(\phi)$$