

$$\begin{aligned}
G^{\text{bos}}(\epsilon_{\pm}) &= \left\langle \exp \left[-\epsilon_- \int d^2 z \, \partial X (Z^1 \bar{\partial} Z^2 + \bar{Z}^2 \bar{\partial} \bar{Z}^1) - \epsilon_+ \int d^2 z \, (Z^1 \partial \bar{Z}^2 + Z^2 \partial \bar{Z}^1) \bar{\partial} X \right] \right\rangle \\
&= \frac{(2\pi)^2 (\epsilon_-^2 - \epsilon_+^2) \bar{\eta}(\bar{\tau})^6}{\bar{\theta}_1(\tilde{\epsilon}_- - \tilde{\epsilon}_+; \bar{\tau}) \bar{\theta}_1(\tilde{\epsilon}_- + \tilde{\epsilon}_+; \bar{\tau})} e^{-\frac{\pi}{\tau_2} (\tilde{\epsilon}_-^2 + \tilde{\epsilon}_+^2)} \times G_{\text{non-hol}}(\epsilon_{\pm})
\end{aligned}$$