$$ {}^{X}e^{-t_0\mathcal{P}^0}_{\acute{X}} = \int_{d\Sigma}^{|\Sigma| = t} \int_{\mathbb{X}|\dot{\partial}\Sigma = \dot{X}}^{d\mathbb{X}} e^{-\int^{\Sigma}\mathcal{P}(\mathbb{X})} $$

$$ \dagger\text{⧗}\underbrace{e^{-t_0\mathcal{P}^0}}\acute{\dagger} = \int^{dX} {}^{X}\overset{*}{\dagger}\;{}^{X}\overbrace{e^{-t_0\mathcal{P}^0}\acute{\dagger}} = \int^{dX} {}^{X}\overset{*}{\dagger} \int^{d\acute{X}} {}^{X}e^{-t_0\mathcal{P}^0}_{\acute{X}}\;{}^{\acute{X}}\acute{\dagger} = \int^{dX}\int^{d\acute{X}} {}^{X}\overset{*}{\dagger}\;{}^{\acute{X}}\acute{\dagger} \int_{d\Sigma}^{|\Sigma| = t} \int_{\mathbb{X}|\dot{\partial}\Sigma = \dot{X}}^{d\mathbb{X}} e^{-\int^{\Sigma}\mathcal{P}(\mathbb{X})} $$

$$ \partial\Sigma = \partial_1\Sigma - \partial_0\Sigma \Longrightarrow \mathcal{Q}^{\sharp}_{-\infty}\partial_1\Sigma \xleftarrow{\mathcal{Q}^{\sharp}_{-\infty}\Sigma} \mathcal{Q}^{\sharp}_{-\infty}\partial_0\Sigma $$

$$ {}^{\varphi}\mathcal{Q}^{\sharp}_{-\infty}\Sigma_{\acute{\varphi}} = \int_{d\Phi}^{\varphi|\acute{\varphi}} \exp\left(-\int^{\Sigma}\mathcal{L}(\Phi)\right) $$

$$ \mathcal{Q}^{\sharp}_{-\infty}\partial_1\Sigma \xleftarrow[\mathcal{Q}^{\sharp}_{-\infty}\Sigma]{} \mathcal{Q}^{\sharp}_{-\infty}\partial_0\Sigma = \partial_1\acute{\Sigma} \xleftarrow[\mathcal{Q}^{\sharp}_{-\infty}\acute{\Sigma}]{} \mathcal{Q}^{\sharp}_{-\infty}\partial_1\acute{\Sigma} $$

$$ \mathcal{Q}^{\sharp}_{-\infty}\partial_1\Sigma \xleftarrow[\mathcal{Q}^{\sharp}_{-\infty}\Sigma \cup \acute{\Sigma}]{} \mathcal{Q}^{\sharp}_{-\infty}\partial_1\acute{\Sigma} $$