

$$M = S \times 0|1$$

$$\partial M = S \times 01 = S_0 \cup S_1$$

$$L^2(\mathcal{F}^{\partial M}) = L^2(\mathcal{F}^{S \times 1}) \boxtimes L^2(\mathcal{F}^{\bar{S} \times 0}) = L^2(\mathcal{F}^S) \boxtimes \bar{L}^2(\mathcal{F}^S) = \text{End } L^2(\mathcal{F}^S)$$

$$L^2(\mathcal{F}^{S_0}) \xleftarrow[\text{dyn}]{sU^t} L^2(\mathcal{F}^{S_1})$$

$${}_r U^s {}_s U^t = {}_r U^t$$

$$\varphi_0 \overbrace{{}_s U^t}^{\gamma} = \int_{\varphi_0}^{\varphi_1} \varphi_0 U_{\varphi_1}^t \varphi_1 \gamma$$

$$\varphi_0 U_{\varphi_1}^t = \varphi_0 : \varphi_1 U^{S \times 01} = \int_{\Phi|_{S_i} = \varphi_i}^{\mathcal{F}^{S \times 0|1}} \mathcal{D}\Phi \exp\left(-\frac{2\pi i}{h} \mathcal{L}(\Phi)\right) = \int_{\Phi|_{S_i} = \varphi_i}^{\mathcal{F}^{S \times 0|1}} d\mathcal{W}(\Phi) \exp\left(-\frac{2\pi i}{h} \mathcal{V}(\Phi)\right)$$

$${}_s U^t = \int_{dT}^{|T|=t-s} U^T$$

$$\int_{dt}^{\mathbb{R}^+} \mathbf{e}^{-t\mathcal{H}} = \frac{\mathbf{e}^{-t\mathcal{H}}}{-\mathcal{H}} \Big|_0^\infty = \mathcal{H}^{-1}$$

$$\mathcal{H}^{-1} = \int_{dt}^{\mathbb{R}^+} \mathbf{e}^{-t\mathcal{H}} = \int_{dt}^{\mathbb{R}^+} \int_{dT}^{|T|=t-s} U^T = \int_{dT} U^T$$