

$$\int_{d^1}^{x|y} \exp \frac{-1}{h} \int_{dt}^{0|\frac{h}{kT}} \left(\frac{m t^2}{2} + {}^t V \right) \text{ density matrix}$$

$$Z(T) = \int_{dx}^{\mathbb{R}} \int_{d^1}^{x|x} \exp \frac{-1}{h} \int_{dt}^{0|\frac{h}{kT}} \left(\frac{m t^2}{2} + {}^t V \right) \text{ partition function temperature } T$$