

非エンタングル歴史の表現

$$\Phi[X] = \prod_t \phi(x(t), t)$$

$$\phi(x, t) = \int dp \, g(p, t) \exp(ipx)$$

$$g(p, t) = \exp f(p, t)$$

$$= \int dp \exp[f(p, t) + ipx]$$

$$\equiv \prod_t \left\{ \int dp(t) \exp[f(p(t), t) + ip(t)x(t)] \right\}$$

$$= \left\{ \prod_t \int dp(t) \right\} \exp \sum_t [f(p(t), t) + ip(t)x(t)]$$



$$\Phi[X] = \int Dp \exp \int dt [f(p(t), t) + ip(t)x(t)]$$