forward policy Z_t^{θ}

$$X_0 \sim \mu_0$$
 $dX_t = \left[f + g^2 \nabla \log \Phi (t, X_t) \right] dt + g dW_t,$

$$\mu_0$$
 μ_1

 $X_1 \sim \mu_1$

reverse SDE
$$dX_t = \left[f - g^2 \nabla \log \widehat{\Phi}(t, X_t) \right] dt + g dW_t$$
backward policy \hat{Z}_t^{ϕ}