$$dx = \theta_t (\mu - x) dt + \sigma_t dw$$

$x(0)$ —— Image Degradation SDE ——→ $x(T)$

LQ   Noise

$x(0)$ ←—— Image Restoration SDE ——— $x(T)$

$\approx$ $+$

$$dx = [\theta_t (\mu - x) - \sigma_t^2 \nabla_x \log p_t(x)] dt + \sigma_t d\hat{w}$$

μ $\epsilon \sim \mathcal{N}(0, \lambda^2)$