$\mathbf{x}(0)$

$$\mathrm{d}\mathbf{x}_t = f(\mathbf{x}_t, t)\mathrm{d}t + \sqrt{\beta(t)} \cdot \mathrm{d}\mathbf{W}_t$$

$\mathbf{x}(T)$

data

noise

$$\mathrm{d}\mathbf{x}_t = [f(\mathbf{x}_t, t) - \beta(t)\nabla_{\mathbf{x}_t} \log p_t(\mathbf{x}_t)]\mathrm{d}t + \sqrt{\beta(t)} \cdot \mathrm{d}\overline{\mathbf{W}}_t$$

Measurement: $\mathbf{y} = A\mathbf{x} + \mathbf{n}$