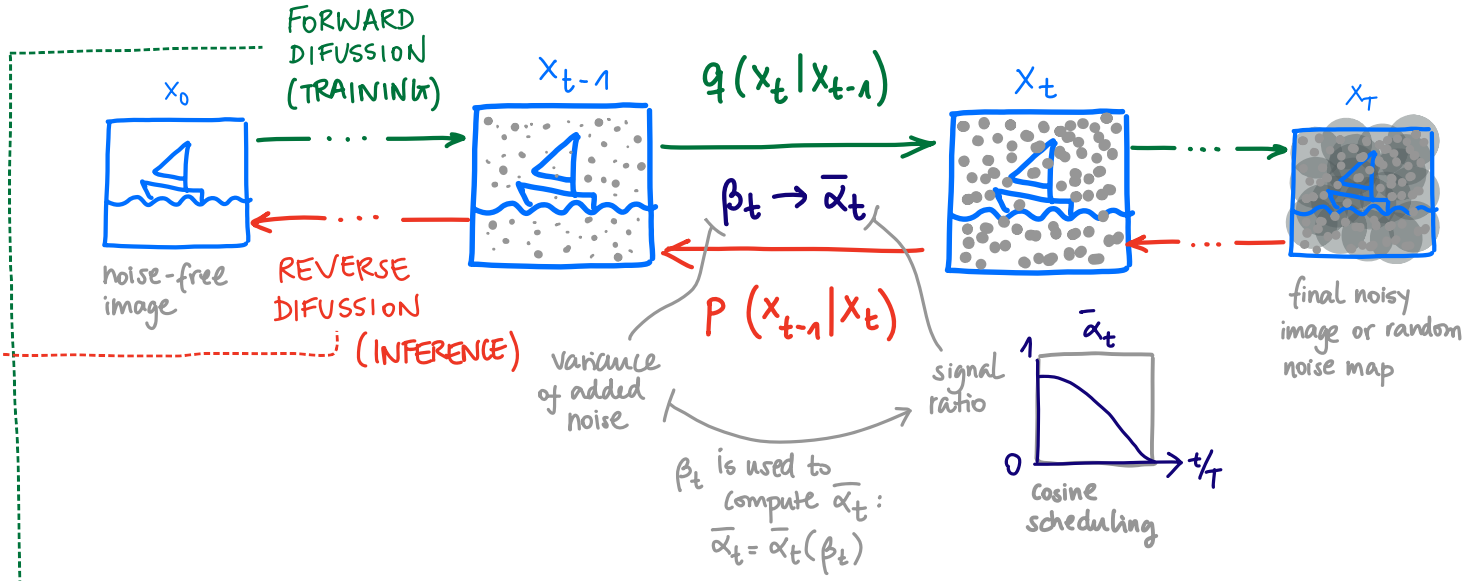

Forward diffusion, noise added: $x_{t-1} \rightarrow x_t$

$$x_t = q(x_t|x_{t-1}) = q(x_{t-1}; \bar{\alpha}_t, \varepsilon_t)$$

- image to add noise step to
- signal ratio, obtained from noise variance β_t
- noise map computed with β_t and used as ground truth (label) to train the U-Net

Reverse diffusion, noise removed: $x_t \rightarrow x_{t-1}$

$$x_{t-1} = p(x_{t-1}|x_t) = p(x_t; \bar{\alpha}_t, \varepsilon_t)$$

- noise map predicted by the U-Net model after training

U-Net model which predicts ε_t in x_t