

# The noise model

$$\mathcal{D} = \mathcal{D}_m + \xi$$

$$\xi_t = \epsilon_\xi \xi_{t-1} + z_t$$

$$\epsilon_\xi = e^{-\Delta t / \tau_\xi}$$

$$\sigma_z^2 = \sigma_\xi^2 (1 - \epsilon_\xi^2)$$

$$z_t \sim N(0, \sigma_z)$$