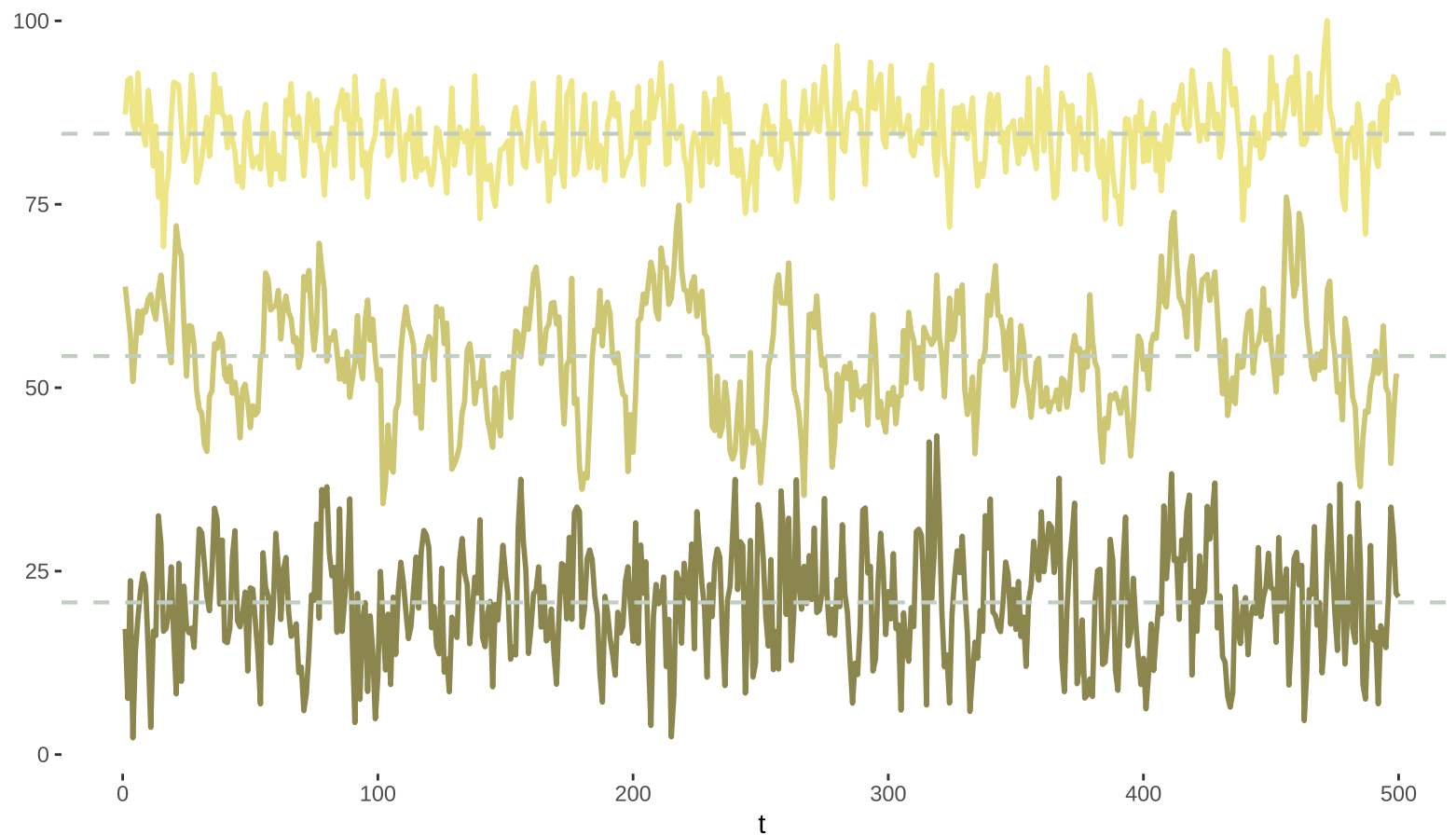
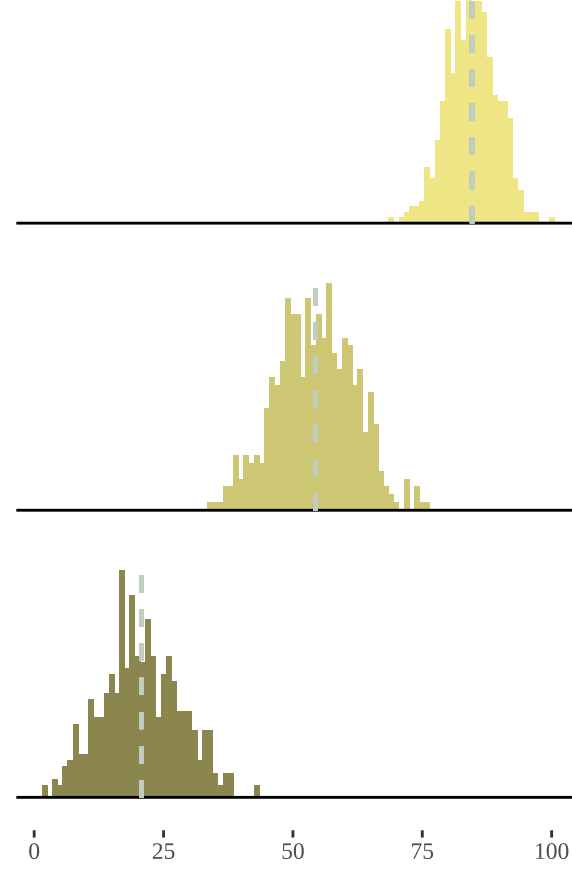


## AR(1)

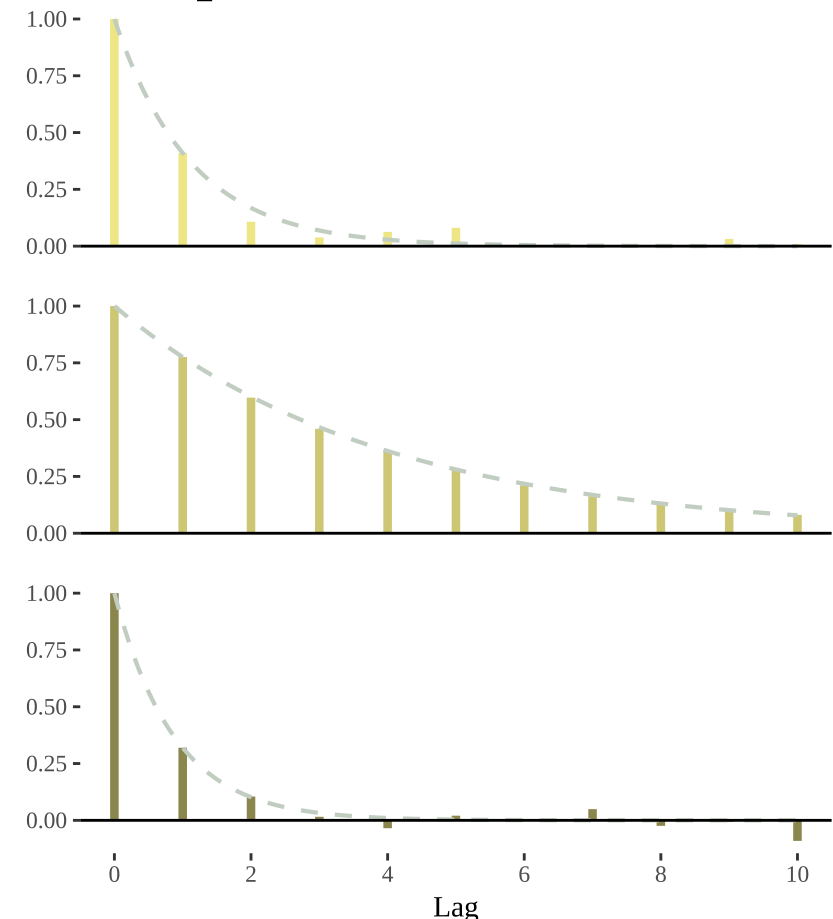
Time series



Marginal distribution



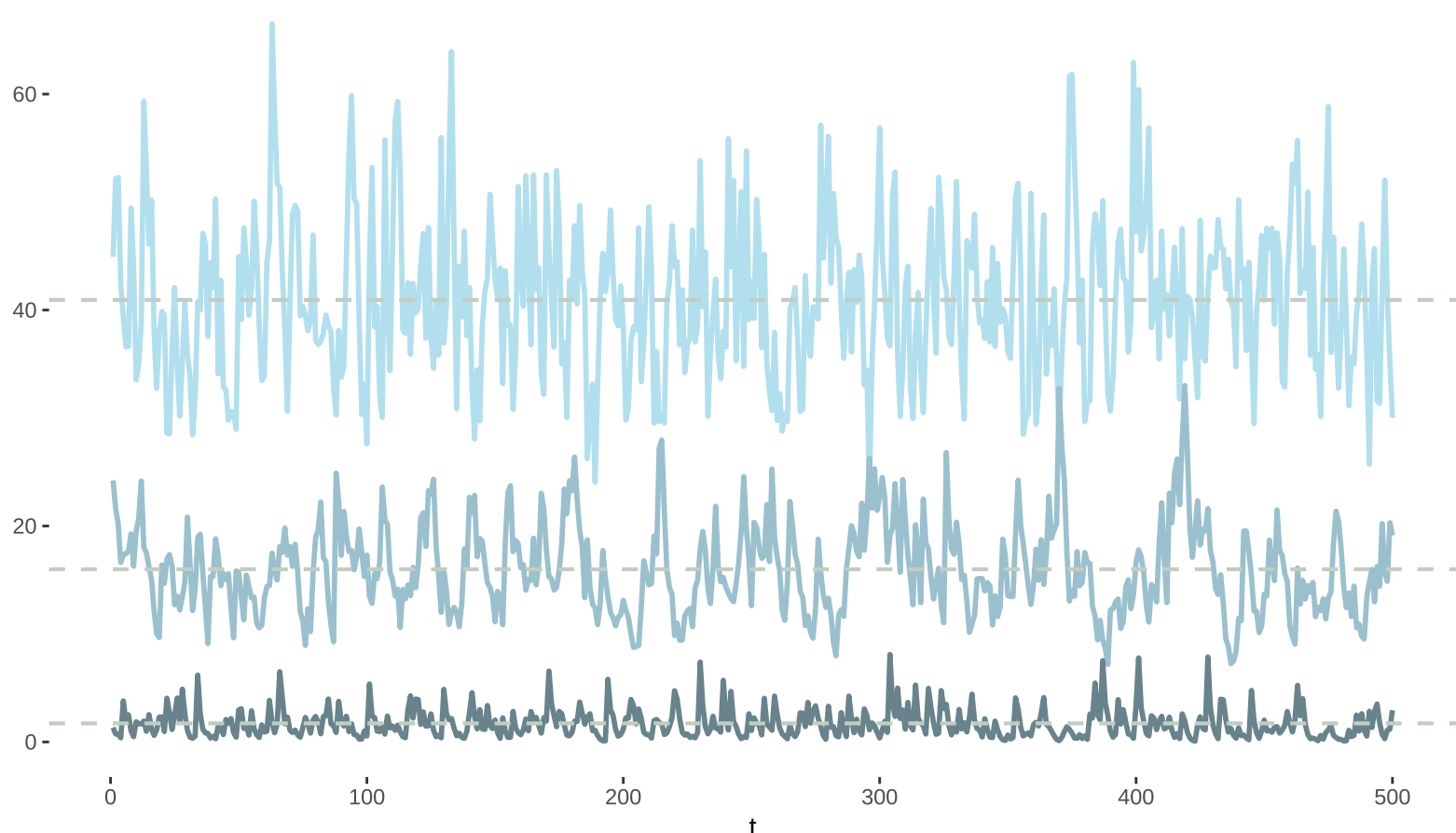
Sample ACF



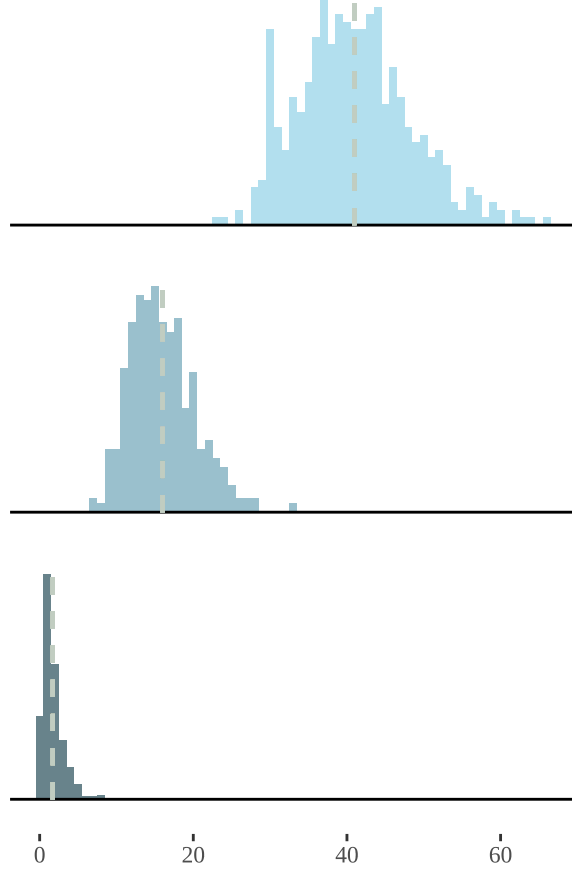
- $\mu = 85, \sigma_{\varepsilon}^2 = 20, \varphi = 0.4 \rightarrow \sigma^2 = 23.23, \gamma = -0.06$
- $\mu = 55, \sigma_{\varepsilon}^2 = 20, \varphi = 0.8 \rightarrow \sigma^2 = 57.92, \gamma = 0$
- $\mu = 20, \sigma_{\varepsilon}^2 = 47, \varphi = 0.4 \rightarrow \sigma^2 = 57.64, \gamma = 0.11$

## $\chi^2$ AR(1)

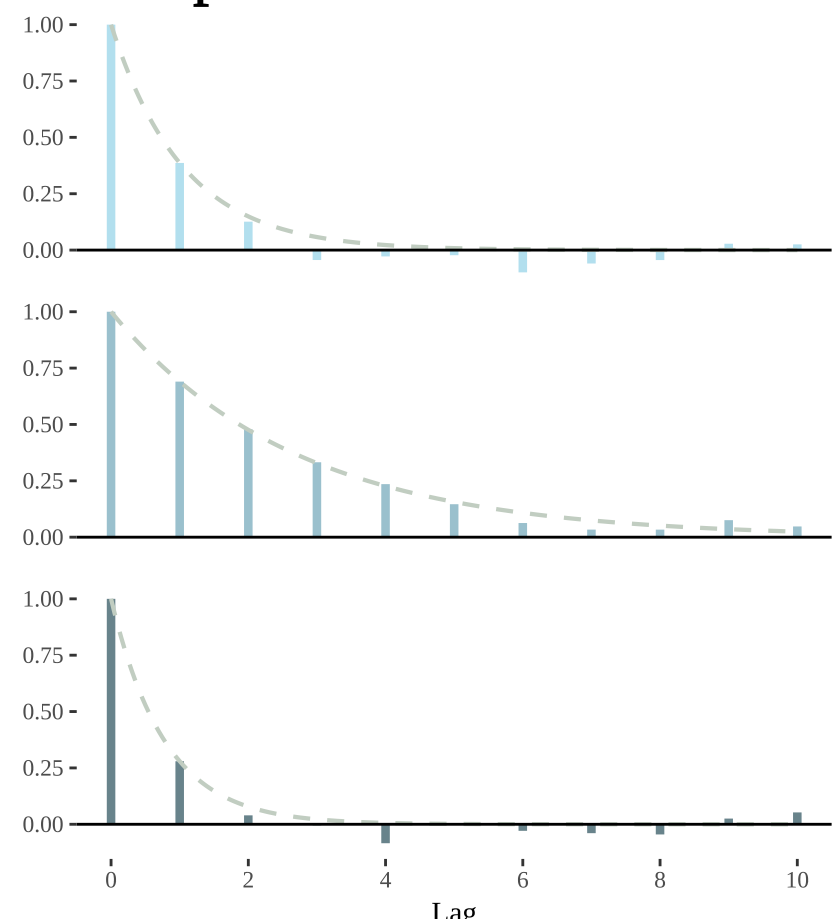
Time series



Marginal distribution



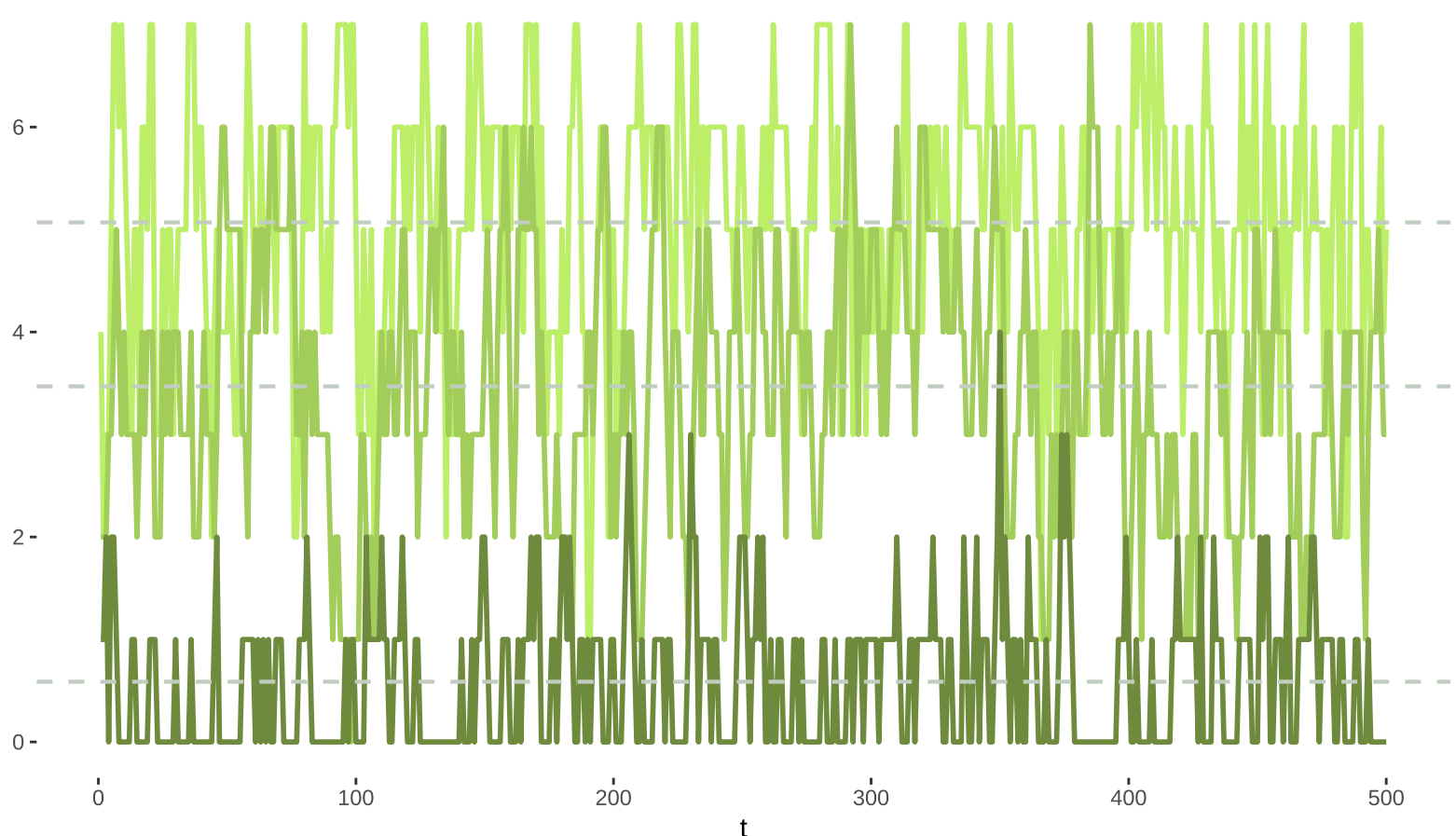
Sample ACF



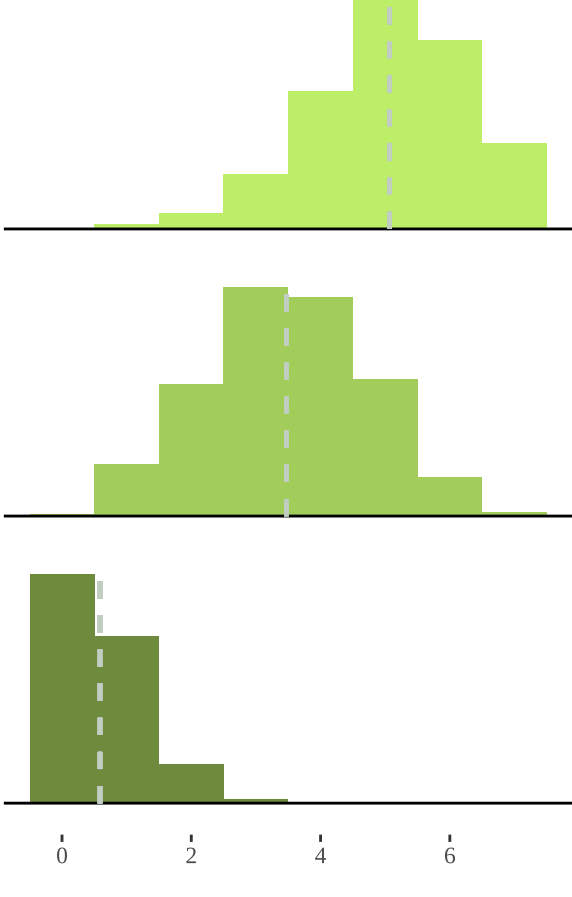
- $c = 0, v = 25, \varphi = 0.4 \rightarrow \mu = 40.94, \sigma^2 = 53.97, \gamma = 0.45$
- $c = 0, v = 5, \varphi = 0.7 \rightarrow \mu = 16, \sigma^2 = 17.79, \gamma = 0.66$
- $c = 0, v = 1, \varphi = 0.4 \rightarrow \mu = 1.72, \sigma^2 = 1.86, \gamma = 1.67$

## BinAR(1)

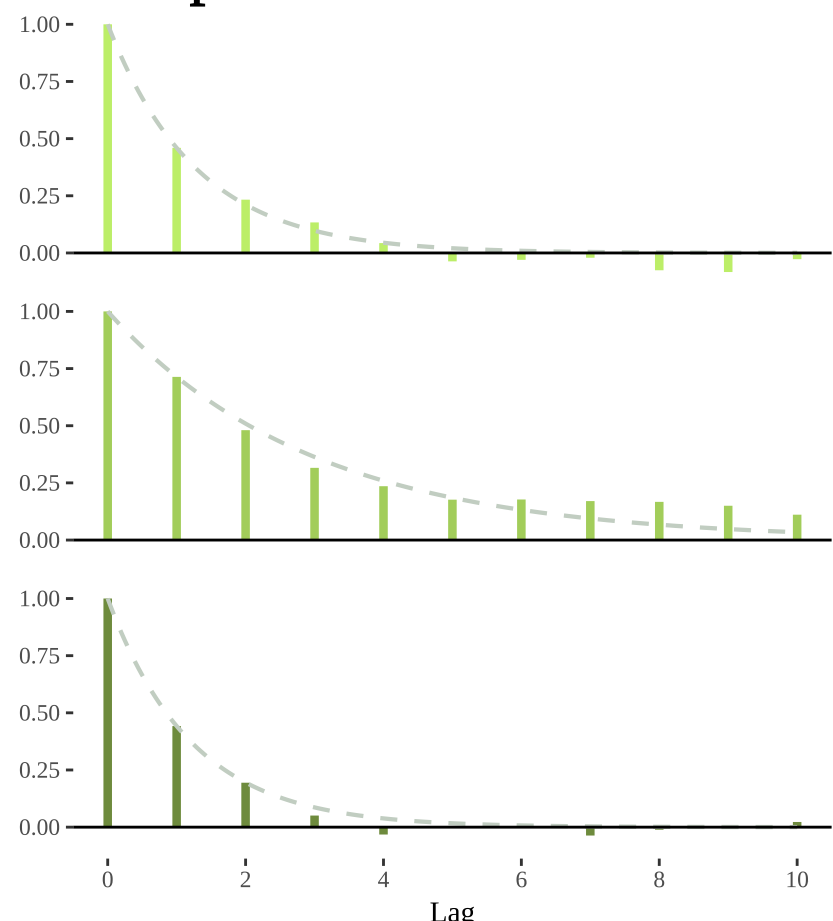
Time series



Marginal distribution



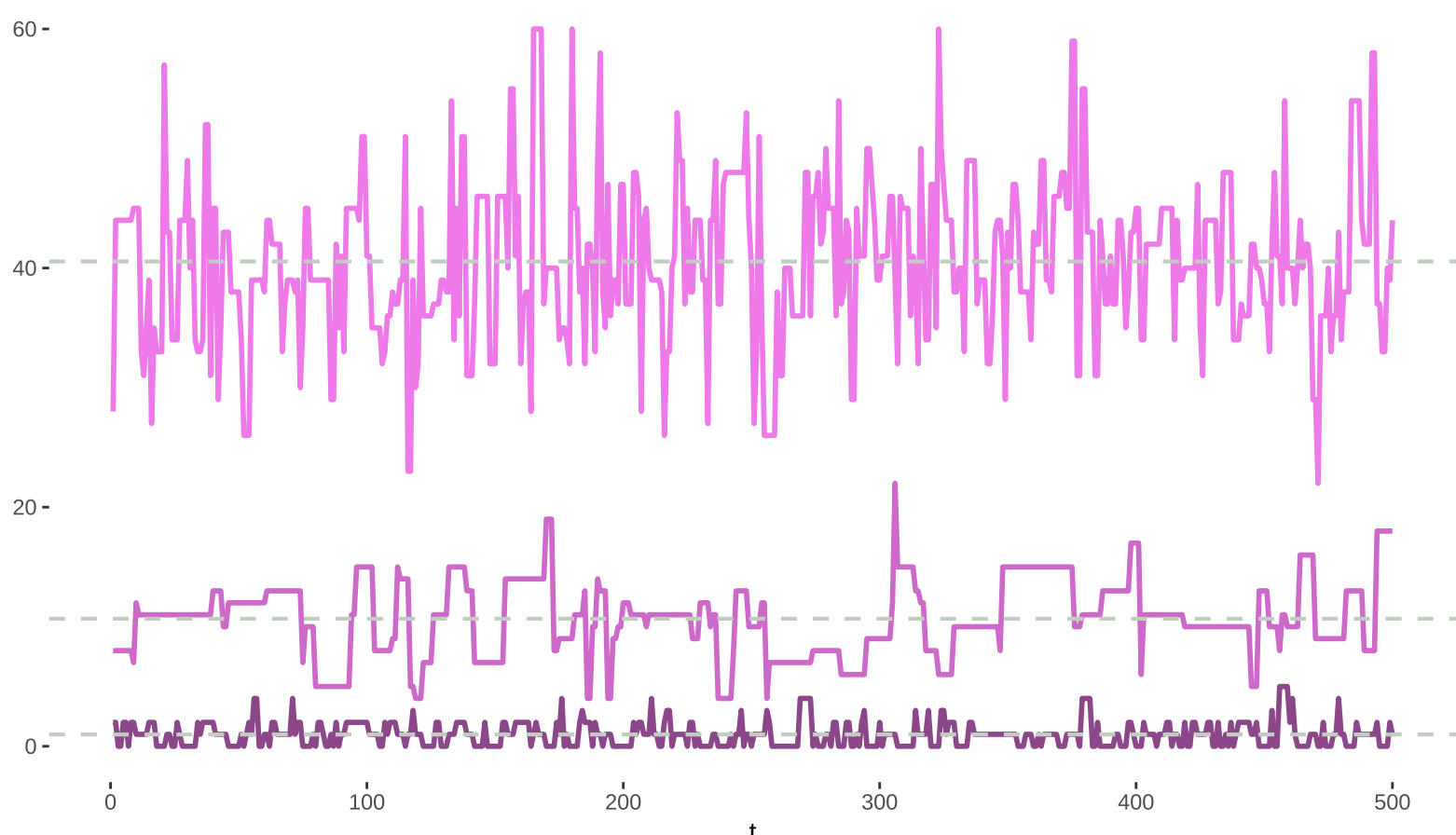
Sample ACF



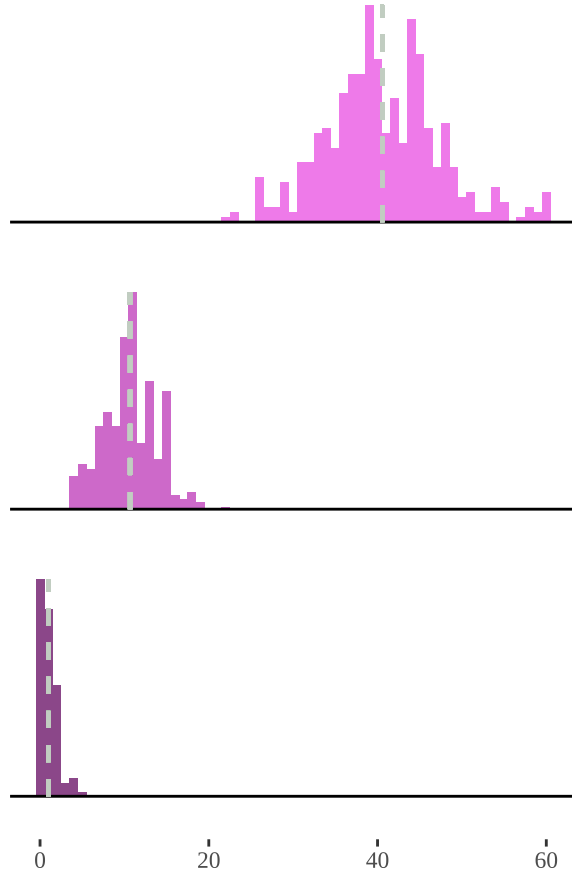
- $k = 7, \alpha = 0.85, \beta = 0.4 \rightarrow \rho = 0.46, \mu = 5.07, \sigma^2 = 1.53, \gamma = -0.46$
- $k = 7, \alpha = 0.85, \beta = 0.15 \rightarrow \rho = 0.71, \mu = 3.47, \sigma^2 = 1.66, \gamma = 0$
- $k = 7, \alpha = 0.5, \beta = 0.05 \rightarrow \rho = 0.44, \mu = 0.59, \sigma^2 = 0.49, \gamma = 1.05$

## PoDAR(1)

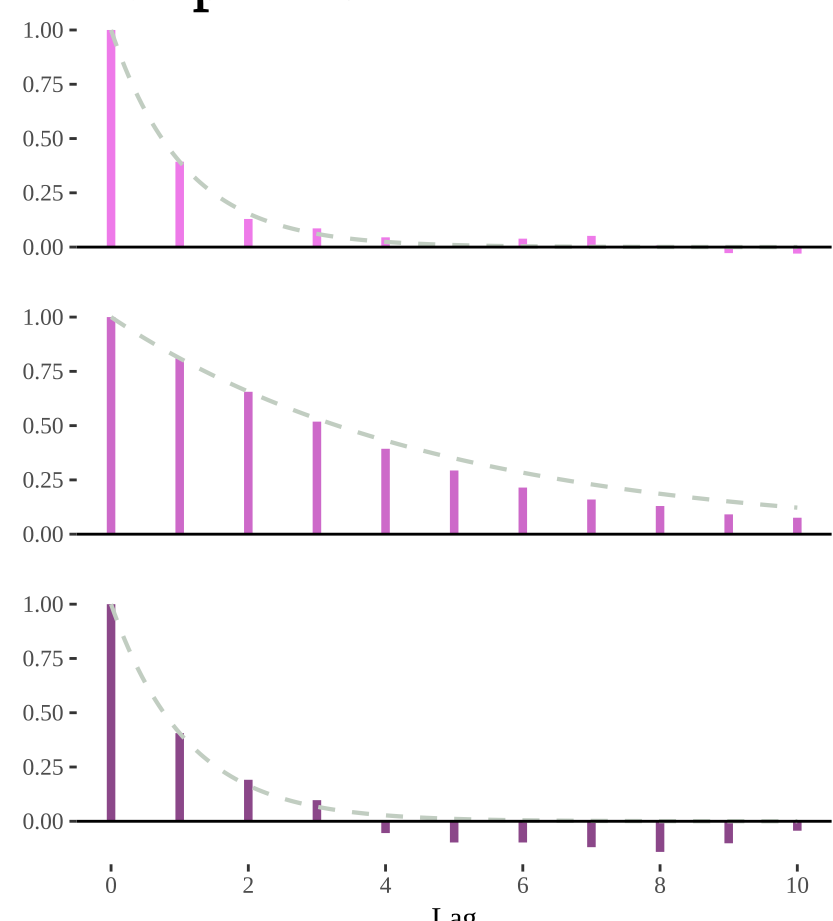
Time series



Marginal distribution



Sample ACF



- $\lambda = 40, \tau = 0.4 \rightarrow \rho = 0.39, \mu = 40.55, \sigma^2 = 45.73, \gamma = 0.25$
- $\lambda = 10, \tau = 0.8 \rightarrow \rho = 0.81, \mu = 10.67, \sigma^2 = 10.15, \gamma = 0.09$
- $\lambda = 1, \tau = 0.4 \rightarrow \rho = 0.41, \mu = 0.98, \sigma^2 = 1.11, \gamma = 1.23$