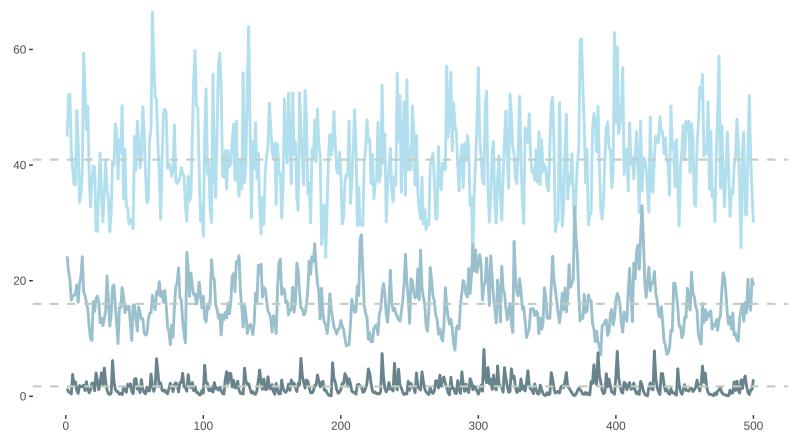
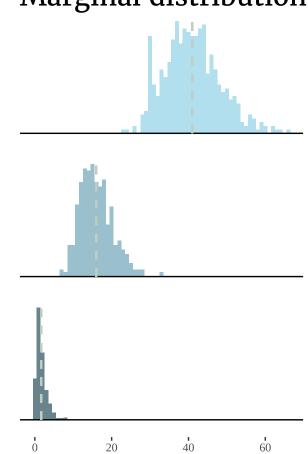
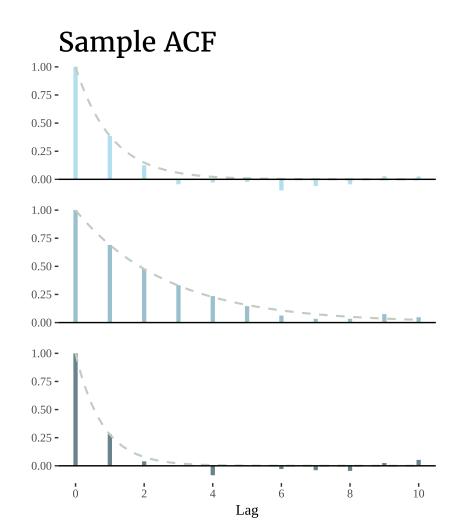
# $\chi^2 AR(1)$





### Marginal distribution



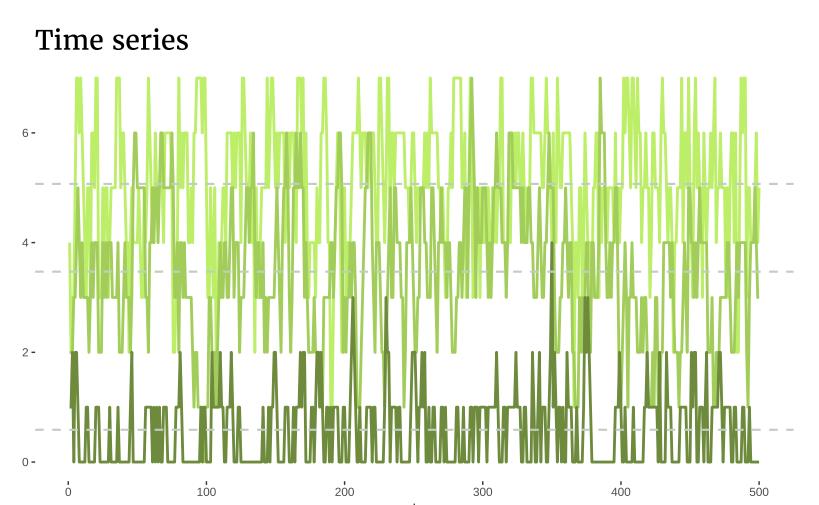


c = 0, 
$$v = 25$$
,  $\varphi = 0.4 \rightarrow \mu = 40.94$ ,  $\sigma^2 = 53.97$ ,  $\gamma = 0.45$ 

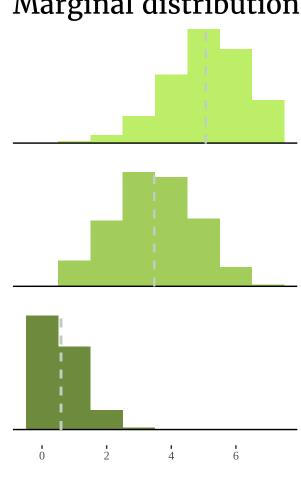
$$c = 0, v = 5, \varphi = 0.7 \rightarrow \mu = 16, \sigma^2 = 17.79, \gamma = 0.66$$

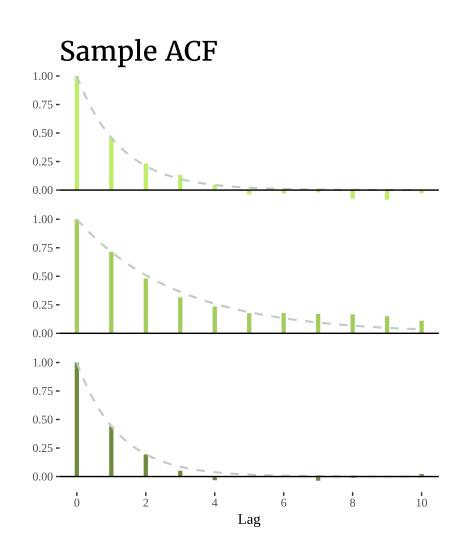
c = 0, 
$$v = 1$$
,  $\varphi = 0.4 \rightarrow \mu = 1.72$ ,  $\sigma^2 = 1.86$ ,  $\gamma = 1.67$ 

### BinAR(1)



#### Marginal distribution



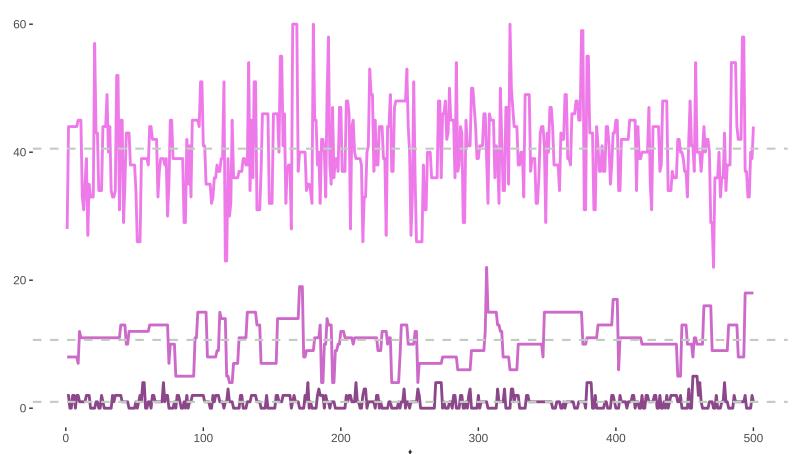


k = 7, 
$$\alpha$$
 = 0.85,  $\beta$  = 0.4  $\rightarrow$   $\rho$  = 0.46,  $\mu$  = 5.07,  $\sigma^2$  = 1.53,  $\gamma$  = -0.46

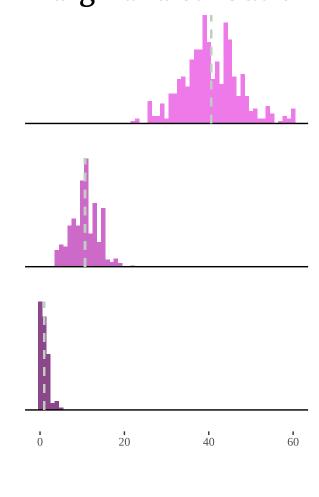
$$k = 7$$
,  $\alpha = 0.85$ ,  $\beta = 0.15 \rightarrow \rho = 0.71$ ,  $\mu = 3.47$ ,  $\sigma^2 = 1.66$ ,  $\gamma = 0$ 

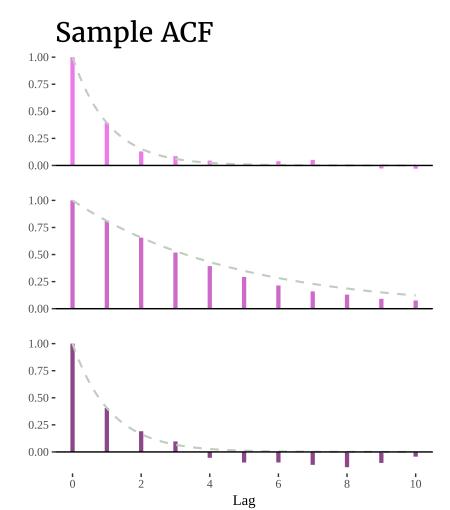
## PoDAR(1)

#### Time series



#### Marginal distribution





$$\lambda = 40, \quad \tau = 0.4 \quad \rightarrow \quad \rho = 0.39, \quad \mu = 40.55, \quad \sigma^2 = 45.73, \quad \gamma = 0.25$$

$$\lambda = 10, \quad \tau = 0.8 \quad \rightarrow \quad \rho = 0.81, \quad \mu = 10.67, \quad \sigma^2 = 10.15, \quad \gamma = 0.09$$

$$\lambda = 1$$
,  $\tau = 0.4 \rightarrow \rho = 0.41$ ,  $\mu = 0.98$ ,  $\sigma^2 = 1.11$ ,  $\gamma = 1.23$ 

k = 7,  $\alpha = 0.5$ ,  $\beta = 0.05 \rightarrow \rho = 0.44$ ,  $\mu = 0.59$ ,  $\sigma^2 = 0.49$ ,  $\gamma = 1.05$