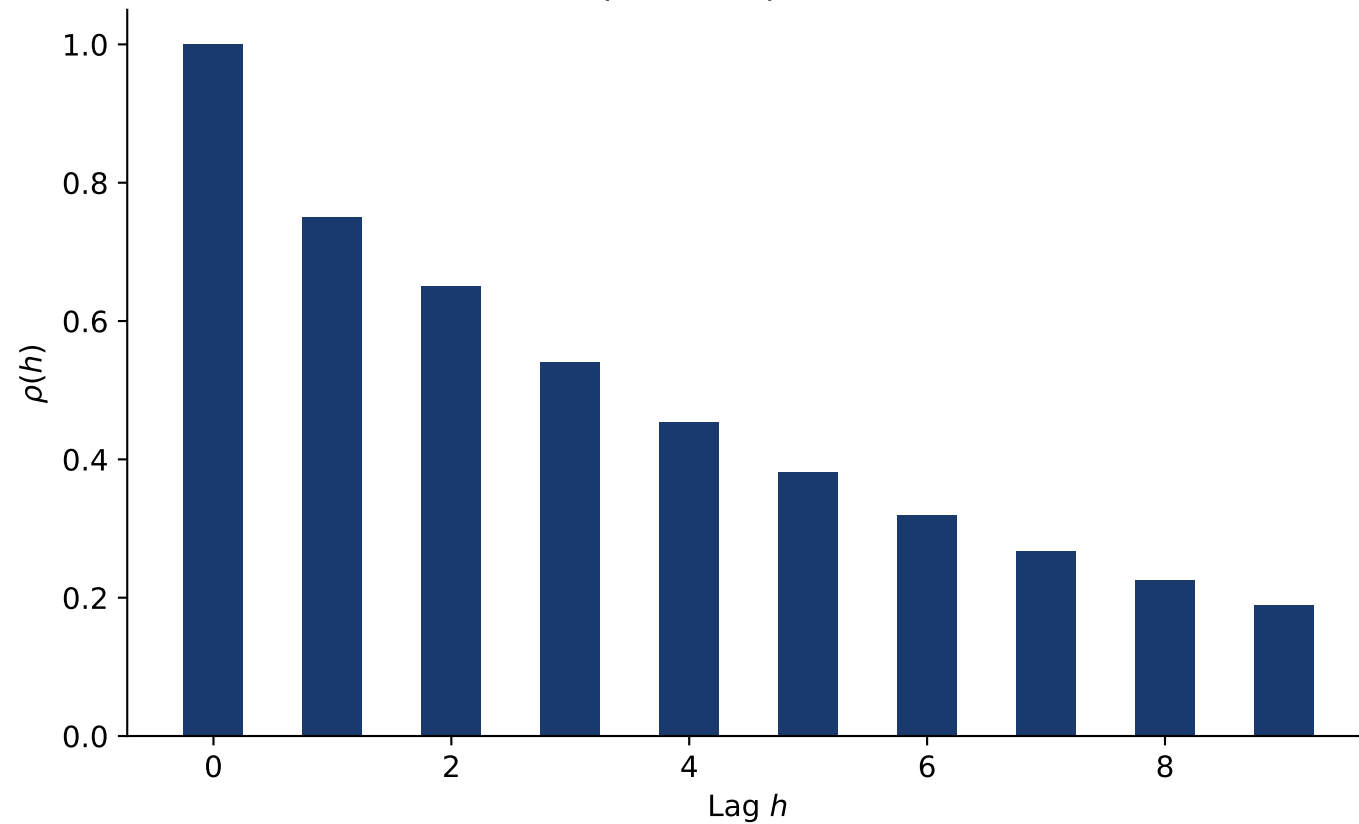


## Theoretical ACF for AR(2)

$$\phi_1 = 0.6, \phi_2 = 0.2$$



## Yule-Walker Equations

$$\rho(1) = \phi_1 + \phi_2 \rho(1)$$

$$\rho(2) = \phi_1 \rho(1) + \phi_2$$

$$\text{Matrix form: } R \cdot \phi = \rho$$

R = autocorrelation matrix

$$\text{Solution: } \hat{\phi} = R^{-1} \rho$$