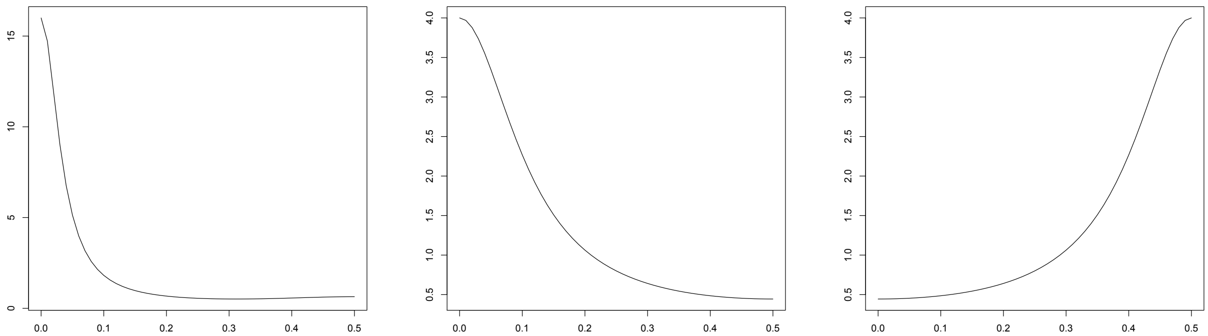
STA 137—Applied Time Series Analysis **Homework 28**

[1] The plots in the figure show the spectral densities for two AR(1) and an AR(2) process, respectively. Identify which plot belongs to which autoregressive process.



[2] For the AR(1) processes in [1], can you determine the sign of the AR parameter ϕ?

[3] The plots in the figure show the spectral densities of two AR processes of the same order p. Determine p. Decide which of the two spectral densities was generated using only positive parameters $\phi_1, \ldots, \phi_p > 0$.