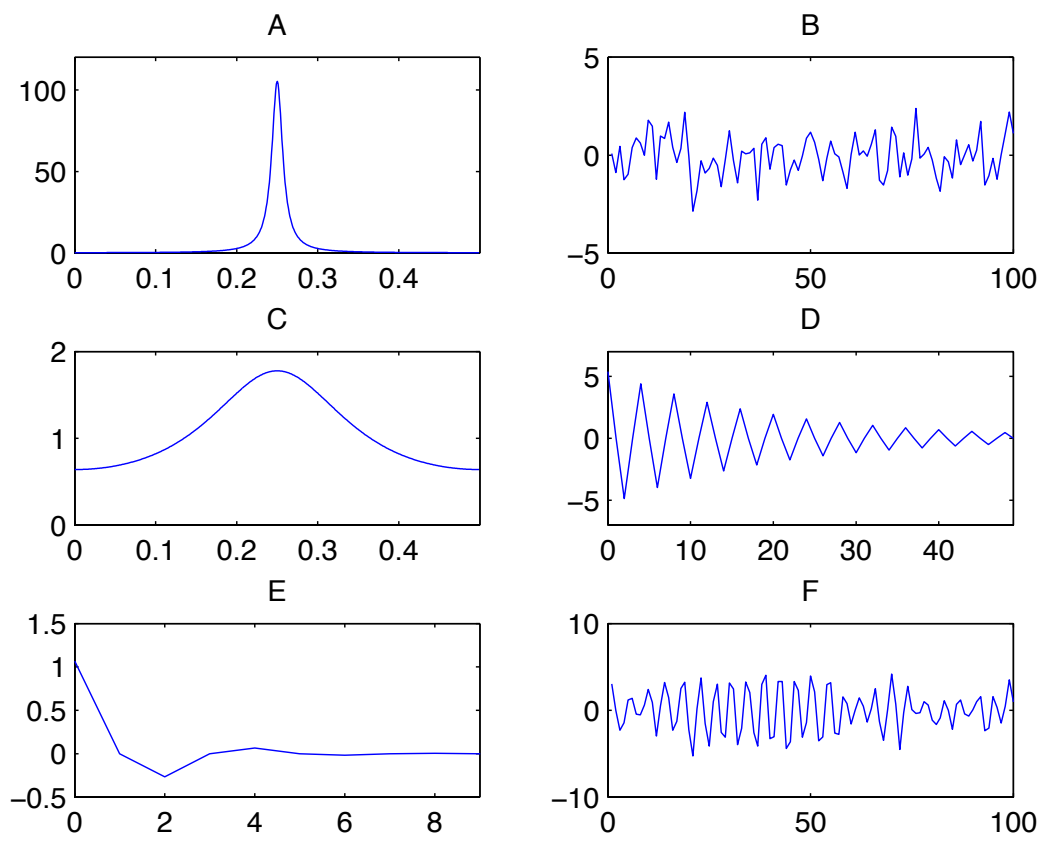


Example: State, with motivation, which of the figures below that are realizations, covariance functions and spectral densities. Combine the two different processes with their covariance functions and spectral densities.



Answer and motivation: A and C are spectral densities as they are positive for all values. D and E are covariance functions as they are largest at $\tau = 0$. Then B and F have to be realizations. A belong to the covariance function D and realization F as A has few frequencies which gives a sinusoidal realization and strong dependence in the covariance function. The spectral density C belongs to B and E as C includes many frequencies which gives a noisy realization and a small dependence in the covariance function.