

Two Gaussian distributed classes in which the dimensionality is $n = 20$ and each class has 100 samples, their mean vectors and covariance matrices are shown below:

$$M_i = 0 \quad \text{and} \quad \Sigma_i = \begin{bmatrix} 1 & \rho_i & \dots & \rho_i^{n-1} \\ \rho_i & 1 & & \vdots \\ \vdots & & \ddots & \rho_i \\ \rho_i^{n-1} & \dots & \rho_i & 1 \end{bmatrix}$$

where $\rho_1 = 0.9$ and $\rho_2 = 0.5$.

Note: It is called the stationary random process.