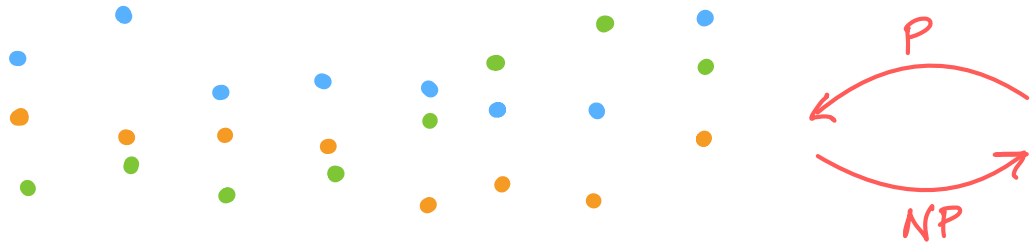
## Multivariate Gaussian

random vector

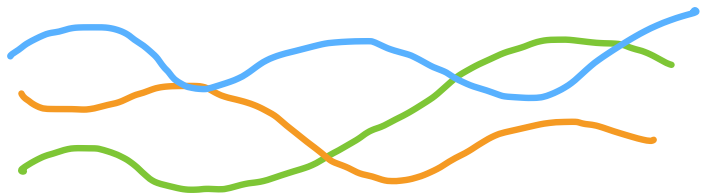
$$\begin{cases} W = (W_1, \dots, W_k) \in \mathbb{R}^k \\ W \sim N(\mu, \Sigma) \end{cases}$$




## Gaussian Process

random function

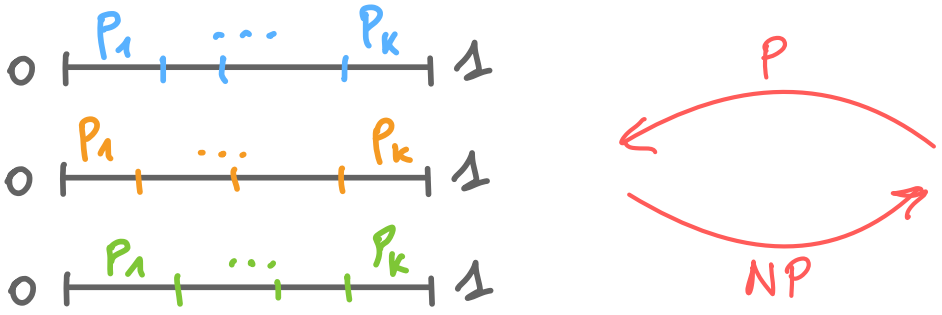
$$\begin{cases} W = (W_t)_{t \in \mathbb{R}}, \ W \sim GP \\ \text{Margins}(W) \sim N(\mu, \Sigma) \end{cases}$$



## Dirichlet Distribution

random proba. vector

$$\begin{cases} P = (P_1, \dots, P_k) \in S^k \text{ simplex} \\ P \sim \text{Dir}(\alpha), \ \alpha = (\alpha_1, \dots, \alpha_k) \end{cases}$$




## Dirichlet Process

random proba. measure

$$\begin{cases} P = (P_A)_{A \in \text{partitions}(Y)}, \ P \sim DP \\ \text{Margins}(P_A) = (P_1, \dots, P_k) \sim \text{Dir} \end{cases}$$