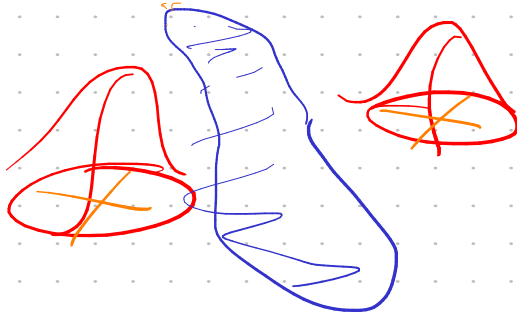


$$\bar{x} \rightarrow \bar{\varphi}(\bar{x}) + \bar{\varepsilon} \sim \mathcal{N}(\varepsilon | 0, \Sigma)$$

$$\begin{pmatrix} x_1 \\ x_2 \end{pmatrix} \rightsquigarrow \begin{pmatrix} x_1 \\ x_2 \\ x_{1+} \\ x_{2+} \\ x_{1x_2} \end{pmatrix} + \begin{pmatrix} \varepsilon_1 \\ \vdots \\ \varepsilon_j \end{pmatrix}$$



$$p(C_i | \bar{x}) = \frac{p(\bar{x} | C_i) p(C_i)}{\sum_j p(\bar{x} | C_j) p(C_j)}$$