$\mathcal{X} = \{\text{the manifold}\}\$ P–Attn $\longrightarrow (\Sigma_k)_{k=1}^K \longrightarrow \sum_{k=1}^K \sigma(w)_k \mathcal{N}(\mu_k, \Sigma_k^T \Sigma_k)$ $\mathcal{X}_n = \{x_1, x_2, x_3, x_4\}$