

$$P(\mathbf{x}_i, \delta_{ij} = 0 | \theta^{(n)}) = \sum_{k \neq j} \pi_k \frac{1}{Z} \exp \frac{-(\mathbf{x}_i - \boldsymbol{\mu}_k^{(n)})^\top \boldsymbol{\Sigma}^{-1} (\mathbf{x}_i - \boldsymbol{\mu}_k^{(n)})}{2}$$