$\mathcal{L}(\boldsymbol{\theta}) = \sum w_i \log \mathcal{N}(\mathbf{z}_i \mid \boldsymbol{\mu}, \boldsymbol{\Sigma}), \quad \mathbf{z}_i \sim \mathcal{N}(\cdot \mid \boldsymbol{\mu}, \boldsymbol{\Sigma}),$