

$$\boldsymbol{\mu}^{(k+1)} \leftarrow (1 - \gamma)\boldsymbol{\mu}^{(k)} + \gamma \sum_{i=1}^N \hat{f}(\mathbf{z}_i)\mathbf{z}_i$$

$$\boldsymbol{\Sigma}^{(k+1)} \leftarrow (1 - \gamma)\boldsymbol{\Sigma}^{(k)} + \gamma \sum_{i=1}^N \hat{f}(\mathbf{z}_i) \left( \mathbf{z}_i - \boldsymbol{\mu}^{(k)} \right) \left( \mathbf{z}_i - \boldsymbol{\mu}^{(k)} \right)^{\top}$$