Expectation Maximization algorithm

For k = 1, …

E-step

$$q^{k+1} = \arg\min_{q} \mathcal{KL}\left[q(T) \parallel p(T \mid X, \theta^k)\right]$$

$$\Leftrightarrow$$

$$q^{k+1}(t_i) = p(t_i \mid x_i, \theta^k)$$

M-step

$$\theta^{k+1} = \arg\max_{\theta} \mathbb{E}_{q^{k+1}} \log p(X, T \mid \theta)$$