

Scaling up Expectation Maximization

$$\max_w p(X \mid w) = \int p(X \mid T, w) p(T) dt$$

Latent Variable model — use EM! But E-step is intractable

MCMC?

$$\mathbb{E}_q \log p(X, T \mid w) \approx \frac{1}{M} \sum_{s=1}^M \log p(X, T_s \mid w)$$

$$T_s \sim q(T)$$