

MCMC for LDA

$$p(\Phi, \Theta, Z|W) \sim \{ \textit{Gibbs Sampling} \}$$

$$\text{Init: } \Phi^0, \Theta^0, Z^0$$

$$\phi_i^1 \sim p(\phi_i | \phi_1^1, \dots, \phi_{i-1}^1, \phi_{i+1}^0, \dots, \Theta^0, Z^0, W)$$

$$\theta_i^1 \sim p(\theta_i | \Phi^1, \theta_1^1, \dots, \theta_{i-1}^1, \theta_{i+1}^0, \dots, Z^0, W)$$