

Collapsed Gibbs for LDA

Model

$$p(\theta_d) = \text{Dir}(\beta)$$

$$p(\phi_t) = \text{Dir}(\alpha)$$

$$p(z_{dn}|\theta_d) = \Theta_{dz_{dn}}$$

$$p(w_{dn}|z_{dn}, \Phi) = \Phi_{z_{dn}w_{dn}}$$

Conjugate