## **Collapsed Gibbs for LDA**

## Model

$$p( heta_d) = \mathrm{Dir}(eta)$$
  $\qquad \qquad p(\phi_t) = \mathrm{Dir}(lpha)$   $p(z_{dn}| heta_d) = \Theta_{dz_{dn}}$   $p(w_{dn}|z_{dn},\Phi) = \Phi_{z_{dn}w_{dn}}$  Conjugate