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Opinion Integration Problem

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$V =$ $\{u_i\} E =$ $\{(u_i, u_j)|u_i, u_j \in V\} M_i =$ $\{m_i\} T =$ $\{Topic_j\} u_i$ $Topic_j O_{i,j} m_i Topic_j M_i =$ $\{m_i\}$ $G =$ $(V, E) VE \subset$ $V \times$ V $u \in$ V $M_u T$ VS $u \in$ V **subjectivity** M_u $uP(u) T \{t\} \{O_t\} S$

$$P(u) = \{(t, w_u(t), \{d_{u,t}(s)|s \in S\})|t \in T\} \quad (1)$$

$uw_u(t) t \in$ $T \sum_{t=1}^{|T|} w_u(t) =$ 1 $utO_t SO_t =$ $\{d_{u,t}(s)|s \in$ $S\} \sum_{s=1}^{|S|} d_{u,t}(s) =$ 1 **??** y $\theta_u \sim$ $Dir(\alpha)$ $w_{u,n} n \in$ $\{1, \cdots, N\}$ $z_{u,n} \sim$ $Multinomial(\theta_u)$ $z_{u,n} w_{u,n}$ $p(w_{u,n}|z_{u,n}, \beta_k)$

$VK u \in$ $V \theta_u \alpha k \in$ $K \beta_k \eta$ $[1, 5][-5, -1][0, 8]$

$$o = \{p + 3\ if\ |p| > |n| n + 5 if\ |n| > |p| 4 if\ |p| = |n| \quad (2)$$

$pn[0, 8][0, 8]$ $VM_u =$ $\{m_i\}$ $u \in$ $VM_u d_u \{d_u|u \in$ $V\} K$ $\theta T \beta$ ms_m $uP(u)$ **??** V u M_u u $P(u)$ $P(\theta, \beta|M_u, V)$ $m \in$ M_u m $s_m \in$ V θ θ_u $Z_u =$ $\{t|p(t|\theta_u) > 0, t \in T\}$ $m \in$ M_u m

$$Z_m = \{t|p(t|\theta, \beta, Z_u) > 0, t \in T\}. \quad (3)$$

$t \in$ Z_u $s \in$ S t