

Define $[aS_j = \bar{R}_{i,j} \sim B_i \sim P_{i,j},$

$$\bar{aS}_i = \mathbb{E}_{\{i\} \rightarrow \{i\}} \left[-a_i \alpha_i, -X_i \mathcal{A}_i \xi_i, \right.$$

$1 + \text{If} [\$k = \theta, \theta, (\bar{aS}_{\{i\}, \$k-1}) \$k [3] -$

$$\left. \left((\bar{aS}_{\{i\}, \theta}) \$k \sim B_i \sim aS_i \sim B_i \sim (\bar{aS}_{\{i\}, \$k-1}) \$k \right) [3] \right]]$$