

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

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

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

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