

Define $\left[am_{i,j \rightarrow k} = \mathbb{E} \{i,j\} \rightarrow \{k\} \left[(\alpha_i + \alpha_j) a_k + \left(\mathcal{A}_j^{-1} \xi_i + \xi_j \right) x_k \right] \right]$,

$bm_{i,j \rightarrow k} = \mathbb{E} \{i,j\} \rightarrow \{k\} \left[(\beta_i + \beta_j) b_k + \left(\eta_i + e^{-\epsilon \beta_i} \eta_j \right) y_k \right]$