

$$\begin{aligned}
 & + \frac{\rho_i}{\rho_i + 1} \frac{1}{\rho_{e_j} + 1} \frac{1}{M} + \frac{1}{\rho_{e_j} + 1} \frac{1}{\rho_i + 1} \frac{1}{M}
 \end{aligned}$$