$$\mathbf{am}_{i\_,j\_\to k\_} := \mathbb{E}\left[(\alpha_i + \alpha_j)\, a_k,\ (e^{-\alpha_j}\, \xi_i + \xi_j)\, x_k,\ 1 + O[\epsilon]^2\right]$$

$$\mathbf{a\Delta}_{i\_\to j\_,k\_} := \mathbb{E}\left[\alpha_i\, (a_j + a_k),\ \xi_i\, (x_j + x_k),\right.$$
$$\left. 1 + \epsilon\, \xi_i\, x_k\, (-a_j + \xi_i\, x_j / 2) + O[\epsilon]^2\right]$$

$$\mathbf{aS}_{i\_} := \mathbb{E}\left[-\alpha_i\, a_i,\ -e^{\alpha_i}\, \xi_i\, x_i,\right.$$
$$\left. 1 - \epsilon\, e^{\alpha_i}\, \xi_i\, x_i\, (a_i + e^{\alpha_i}\, \xi_i\, x_i / 2) + O[\epsilon]^2\right]$$

$$\mathbf{aSi}_{i\_} := \mathbb{E}\left[-\alpha_i\, a_i,\ -e^{\alpha_i}\, \xi_i\, x_i,\right.$$
$$\left. 1 - \epsilon\, e^{\alpha_i}\, \xi_i\, x_i\, (a_i - 1 + e^{\alpha_i}\, \xi_i\, x_i / 2) + O[\epsilon]^2\right]$$