$$R^{+}_{i\_,j\_} := \mathbb{E}\Big[1,\ b_i\, c_j,\ u_i\, w_j,$$
$$-c_i\,(t_i-1)^2/2 - c_i^2\,(t_i-1)^2/2 + c_i\, c_j\,\left(t_j^2 - t_i - 2\right)/2 -$$
$$c_j\, u_i\, w_i/2 + c_i\,(1-t_i)\, u_i\, w_i - u_i^2\, w_i^2/2 + u_i\, w_j + c_j\, t_i\, u_i\, w_j/2 +$$
$$c_i\,(t_i-2)\, t_i\, u_i\, w_j + c_i\,(1+t_j)\, u_j\, w_j/2 + (t_i-1)\, u_i^2\, w_i\, w_j -$$
$$(t_i-2)\, t_i\, u_i^2\, w_j^2/2\Big];$$

$$R^{-}_{i\_,j\_} := \mathbb{E}\Big[1,\ -b_i\, c_j,\ -t_i^{-1}\, u_i\, w_j,$$
$$c_i\,(t_i-1)^2/2 + c_i^2\,(t_i-1)^2/2 + c_i\, c_j\,\left(2 + t_i - t_j^2\right)/2 +$$
$$c_j\, u_i\, w_i/2 + c_i\,(t_i-1)\, u_i\, w_i + u_i^2\, w_i^2/2 + \left(1 - t_i^{-1}\right) u_i\, w_j/2 +$$
$$c_i\,\left(2\, t_i - 5 + 3\, t_i^{-1}\right) u_i\, w_j/2 + c_j\,\left(t_i^{-1} + 1 - t_i^{-1}\, t_j^2\right) u_i\, w_j/2 -$$
$$c_i\,(t_j+1)\, u_j\, w_j/2 + \left(2 - 3\, t_i^{-1}\right) u_i^2\, w_i\, w_j/2 +$$
$$\left(1 + 2\, t_i^{-2} - 3\, t_i^{-1}\right) u_i^2\, w_j^2/2 - t_i^{-1}\,(1+t_j)\, u_i\, u_j\, w_j^2/2\Big];$$

$$ur_{i\_} := \mathbb{E}\left[t_i^{-1/4},\ 0,\ 0,\ c_i\, t_i/4 + u_i\, w_i/8\right];$$

$$nr_{i\_} := \mathbb{E}\left[t_i^{1/4},\ 0,\ 0,\ -c_i\, t_i^3/4 - t_i^2\, u_i\, w_i/8\right];$$

$$ul_{i\_} := \mathbb{E}\left[t_i^{1/4},\ 0,\ 0,\ c_i\, t_i\,(4+t_i)/4 - t_i^2\, u_i\, w_i/8\right];$$

$$nl_{i\_} := \mathbb{E}\left[t_i^{-1/4},\ 0,\ 0,\ -c_i\,\left(1 + 4\, t_i^{-1}\right)/4 + u_i\, w_i/8\right];$$