

Dissipative Hamiltonian $H_{3.5\text{PN}}^{\text{int}}(\mathbf{x}_a, \mathbf{p}_a, t)$

$$\begin{aligned} H_{3.5\text{PN}}^{\text{int}}(\mathbf{x}_a, \mathbf{p}_a, t) = & 5\pi \chi_{(4)ij}(\mathbf{x}_a, \mathbf{p}_a) \left[\dot{\Pi}_{1ij}(t) + \dot{\Pi}_{2ij}(t) + \ddot{\Pi}_{3ij}(t) \right] \\ & + 5\pi \dot{\chi}_{(4)ij}(t) \left[\Pi_{1ij}(\mathbf{x}_a, \mathbf{p}_a) + \tilde{\Pi}_{2ij}(\mathbf{x}_a, t) \right] \\ & - 5\pi \ddot{\chi}_{(4)ij}(t) \Pi_{3ij}(\mathbf{x}_a, \mathbf{p}_a) \\ & + \dot{\chi}_{(4)ij}(t) \left[Q'_{ij}(\mathbf{x}_a, \mathbf{p}_a, t) + Q''_{ij}(\mathbf{x}_a, t) \right] \\ & + \frac{\partial^3}{\partial t^3} \left[R'(\mathbf{x}_a, \mathbf{p}_a, t) + R''(\mathbf{x}_a, t) \right] \end{aligned}$$