

# Dissipative Hamiltonian $H_{2.5\text{PN}}^{\text{int}}(\mathbf{x}_a, \mathbf{p}_a, t)$

$$H_{2.5\text{PN}}^{\text{int}}(\mathbf{x}_a, \mathbf{p}_a, t) = 5\pi \dot{\chi}_{(4)ij}(t) \chi_{(4)ij}(\mathbf{x}_a, \mathbf{p}_a)$$

with

$$\begin{aligned} \chi_{(4)ij}(\mathbf{x}_a, \mathbf{p}_a) := & \frac{1}{60\pi} \left[ \sum_a \frac{2}{m_a} (\mathbf{p}_a^2 \delta_{ij} - 3p_{ai}p_{aj}) \right. \\ & \left. + \frac{1}{16\pi} \sum_a \sum_{b \neq a} \frac{m_a m_b}{r_{ab}} (3n_{ab}^i n_{ab}^j - \delta_{ij}) \right] \end{aligned}$$