

Flesh and skeleton

$$\begin{aligned}\Psi^{-7} \pi_j^i \pi_i^j &= \Psi^{-7} \pi_j^i \text{STF}(2\partial_i V_j) \\ &= \Psi^{-7} \left(\underbrace{-2V_i \partial_j \pi_j^i}_{\text{skeleton}} + \underbrace{2\partial_j (V_i \pi_j^i)}_{\text{flesh}} \right) = \mathcal{O}\left(\frac{1}{c^6}\right)\end{aligned}$$

Properties of the flesh term:

- contributes to the **2PN** field (and dynamics)
- vanishes when $p_{Ai} = 0$
- vanishes in the test body limit
- contains **poles** in dimensional regularization
← compensated by poles in h_{ij}^{TT} in the Einstein theory