

# Skeleton field for 2 black holes (II)

## Shift function

- 2<sup>nd</sup> skeleton approximation: 2PN flesh term neglected in  $N^i$

$$\partial_j \left( \Psi^{-6} N \pi_j^i \right) \rightarrow \Psi^{-6} N \partial_j \pi_j^i = -\frac{8\pi G}{c^3} \Psi^{-6} N \sum_{A=1}^N p_{Ai} \delta_A$$

- integration of the shift equation  $\sim$  integration of  $V_i$

$$N^i = \frac{G}{c^3} \sum_{A=1}^N \chi_A \Psi_A^{-7} \left( \frac{1}{2} p_{Aj} \partial_{ij} r_A - 4 p_{Ai} \frac{1}{r_A} \right)$$

## Komar mass $M_{\text{Komar}}$ :

$$N = 1 - \frac{GM_{\text{Komar}}}{c^2 |x|} + \mathcal{O} \left( \frac{1}{|x|} \right) \Rightarrow M_{\text{Komar}} = \frac{1}{2} \sum_{A=1}^2 (\alpha_A + \beta_A)$$