

# Gravity @ ICTP

## Chrusciel

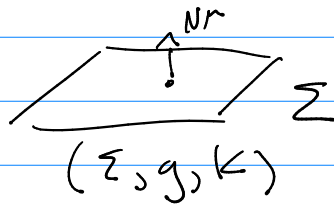
- reminders:

→ SCE

$R = 16\pi S + \frac{T_{\mu\nu} N^\mu N^\nu}{N}$

→ VCE

$D_i (k^i_j - k^k_k \delta^i_j) = -8\pi J_j$   
 $\frac{T_{ij} N^j}{N}$



-  $m_{\text{ADM}} = \frac{1}{16\pi} \int_{S_\infty} (\partial_i g_{ij} - \partial_j g_{ii}) dS_j$

-  $k_{ij} = \frac{1}{2} (D_i N_j + D_j N_i)$

-  $g_{ij} = \delta_{ij} + O(r^{-\alpha})$ ,  $\partial_k g_{ij} = O(r^{-\alpha-1})$ ,  
 $\int R < \infty$ ,  $\alpha > \frac{1}{2}$