



Extreme hydro workshop 2021



T. NUNES - UNIVERSIDADE FEDERAL DE SANTA CATARINA (UFSC)

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# HOMework

# HOMEWORK

- ▶ Use the following parameters on TRENTo, generate initial conditions for Pb-Pb collisions on a grid of size 14 fm x 14 fm with a step size of 0.1:
  - ▶ fluctuation (k): 1.187
  - ▶ nucleon-width (w): 0.956
  - ▶ nucleon-min-dist (d): 1.27
  - ▶ cross-section (x): 6.28
  - ▶ normalization (x): 286.23
- ▶ Run Kompost on EKT mode from  $\tau = 0.2$  fm/c to  $\tau = 1.2$  fm/c with  $\eta/s = 0.16$  with `trentoRenorm=1.09`
- ▶ Use the resulting profiles as inputs to MUSIC + iSS + UrQMD ( $\tau_{\text{hydro}} = 1.2$  fm/c, 100 oversamples/event)
- ▶ Use the final ROOT files with final particles, together with the analysis framework to calculate the final multiplicity of charged particles  $N_{\text{ch}}$  and the transverse momentum spectra.

## HOMework - CENTRALITY

- Impact parameter vs Centrality

Centrality	b-min (fm)	b-max (fm)
0-5%	0	3.74
5-10%	3.74	5.28
10-20%	5.28	7.46
20-30%	7.46	9.13
30-40%	9.13	10.55
40-50%	10.55	11.79
50-60%	11.79	12.91
60-70%	12.91	13.94
70-80%	13.94	14.91
80-90%	14.91	15.94
90-100%	15.94	default

Unicamp participants: 0-10% and 10-20%

Non-Unicamp participants: 20-40% and 40-60%