

Update on new MC simulations

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GSI2021 again

An important geometry error was found for the experimental campaign GSI2021. An important mismatch in the z coordinate of various detectors was found.

Detector alignment had to be redone, and the whole analysis had to be restarted.

Actually, MC geometry was correct, however it was requested to produce a new high statistics simulation at 400 MeV/u for C₂H₄ target and no-target cases. To be coherent, also the simulation for C target was reproduced

GSI21PS_MC new production

On tier1 in /storage/gpfs_data/foot/shared/SimulatedData/GSI21PS_MC

1) Run 400 (C target):

160_C_400_1.root

160_C_400_2.root

5 10^6 primaries for each file

2) Run 401 (C₂H₄ target):

160_C2H4_400_1.root

160_C2H4_400_2.root

5 10^6 primaries for each file

3) Run 402 (no target):

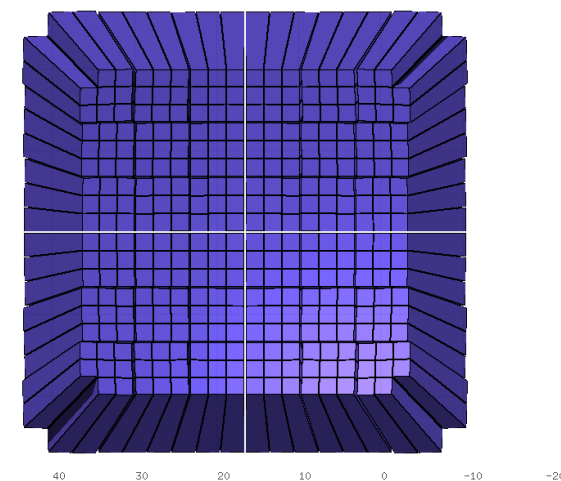
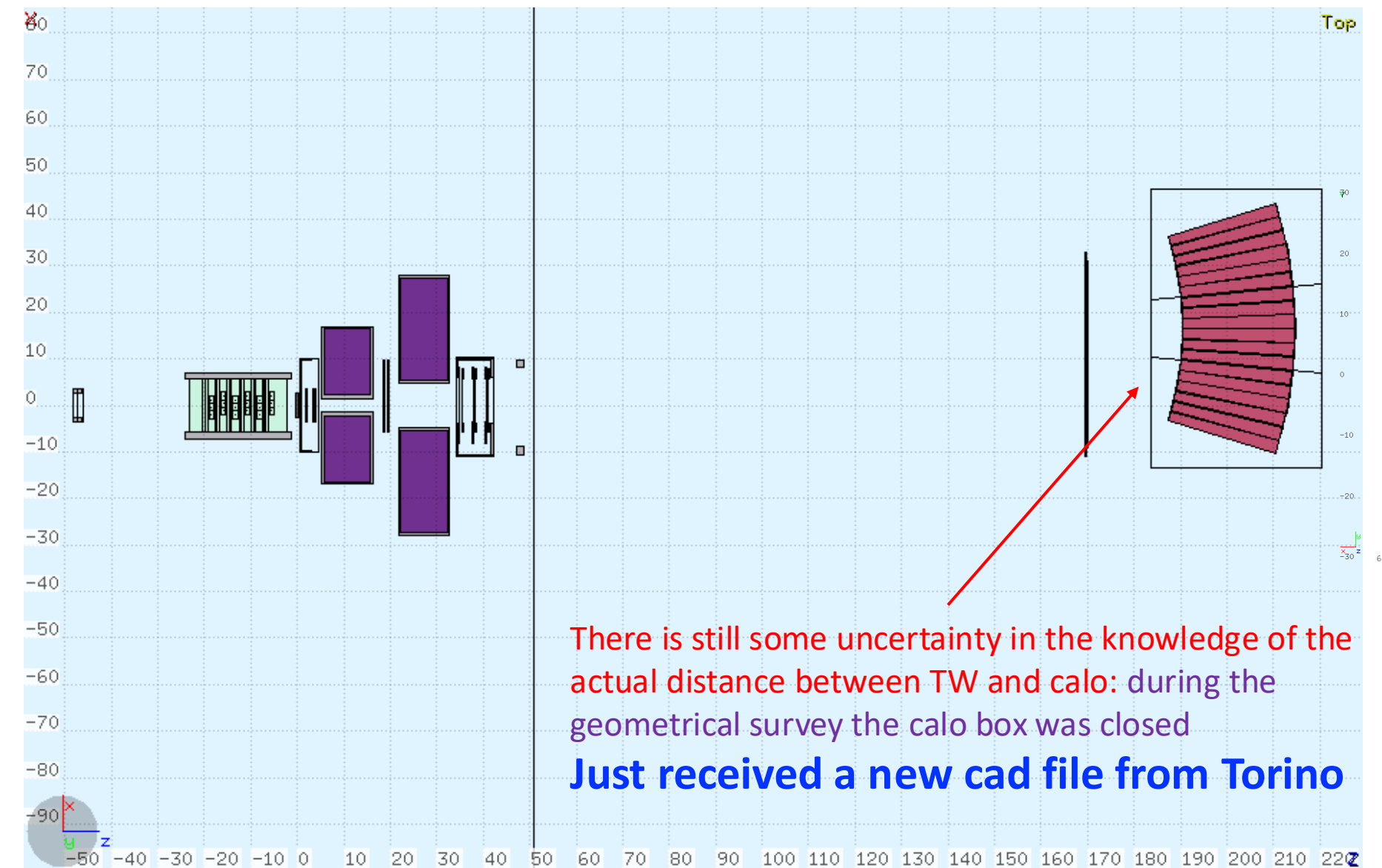
160_AIR_400_1.root

160_AIR_400_2.root

160_AIR_400_3.root

5 10^6 primaries for each file

CNAO24PS_MC campaign



CNAO24PS_MC new production

On tier1 in [/storage/gpfs_data/foot/shared/SimulatedData/CNAO24PS_MC](#)

1) Run 200 (C target):

12C_C_200_1.root

12C_C_200_2.root

5 10^6 primaries for each file

2) Run 202 (no target):

12C_AIR_200.root

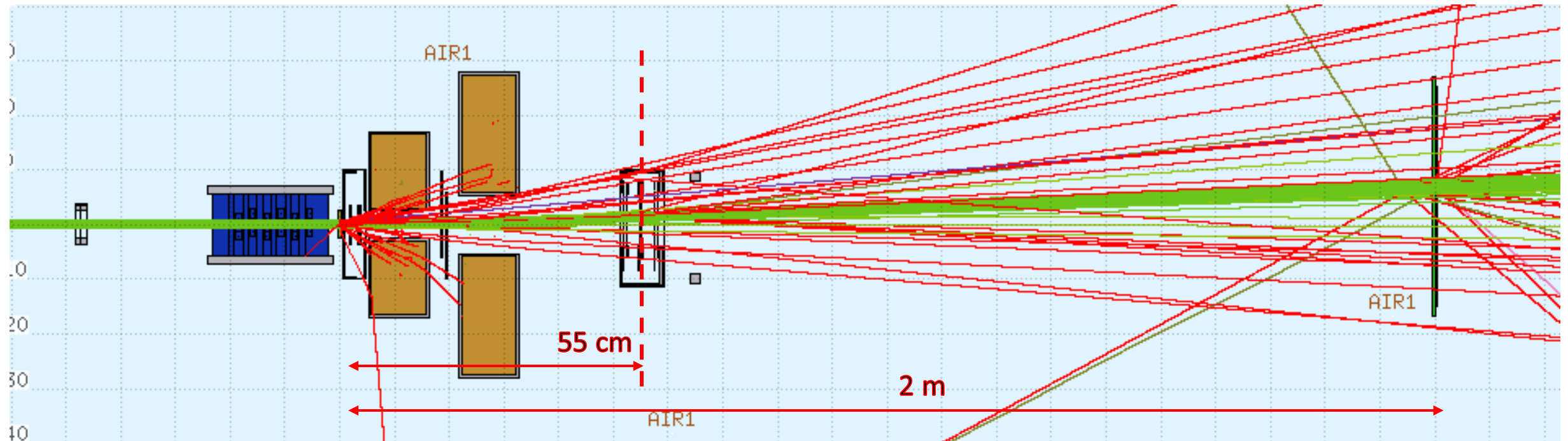
5 10^6 primaries

GSI2026 beams and targets

After discussion in the working group committed to the preparation of proposal for BioPac at GSI it was decided to consider:

- ^{16}O and ^{12}C beams at 700 MeV/u
- Targets:
 - C 1 cm (1.83 g/cm²),
 - Al 1 cm (2.7 g/cm²),
 - C₂H₄ 2 cm (1.88 g/cm²)

GSI26PS_MC campaign



Same as CNAO2024

No Calorimeter

GSI26PS_MC new production

On tier1 in [/storage/gpfs_data/foot/shared/SimulatedData/GSI26PS_MC](#)

- 1) Run **700** (^{16}O + C target): **16O_C_700.root**
- 2) Run **701** (^{16}O + C_2H_4 target): **16O_C2H4_700.root**
- 3) Run **703** (^{16}O + Al target): **16O_Al_700.root**
- 4) Run **710** (^{12}C + C target): **12C_C_700.root**
- 5) Run **711** (^{12}C + C_2H_4 target): **12C_C2H4_700.root**
- 6) Run **713** (^{12}C + Al target): **12C_Al_700.root**

10^6 primaries for each beam and target

To be done:

- GSI21PS_MC at 200 MeV/u: waiting for some checks in geometry and beam model
- HIT22PS_MC: waiting for beam model checks
- CNAO22PS_MC: do we need it?
- Wiki page update..., sorry