The new Full Detector Simulation Campaign to train and test Tracking & Reconstrution

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Production

The required production for the **12C_200_2023** campaign has bee completed.

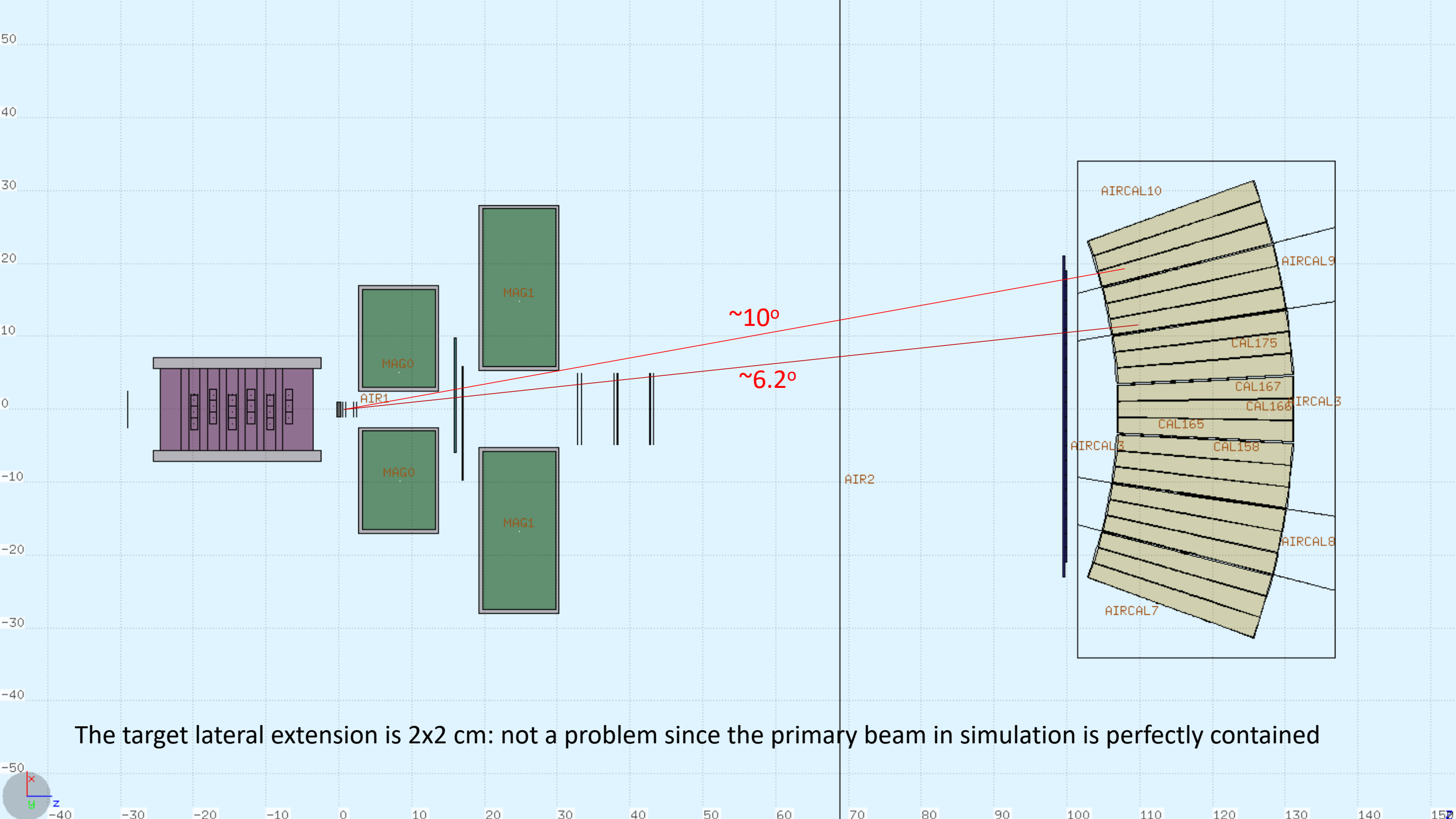Available in tier3 in /gpfs_data/local/foot/Simulation/12C_200_2023

1) 10^7 events "untriggered" (all events)

12C_C_200_1_shoereg.root (50 10^6 events)

12C_C_200_2_shoereg.root (50 10^6 events)

2) Additional 10^6 primary events in triggered mode (only fragmentation in target events)

12C_C_200trig_shoereg.root (it contains 33892 fragmentation events)

~10°

~6.2°

The target lateral extension is 2x2 cm: not a problem since the primary beam in simulation is perfectly contained

Comments and questions

As announced before, 12C_200_2023 campaign has bee cloned from the 12C_200new one. We see 2 issues deriving from this choice:

1) The target-TW distance is ~ 1m. We have recently learned that our ToF resolution is such suggest distances ≥ 1.5 m in order to achieve a better performance in Z/mass resolution *(see also the issue of solid angle coverage with MSD when the magnets are in!)*

2) We have not introduced any displacement in the system TW+Calorimenter to compensate for magnetic bending

Question: is this geometry still useful for the training of Tracking/Reconstruction, or should we reprocess with a different distance?