

TCMT geometry driver update

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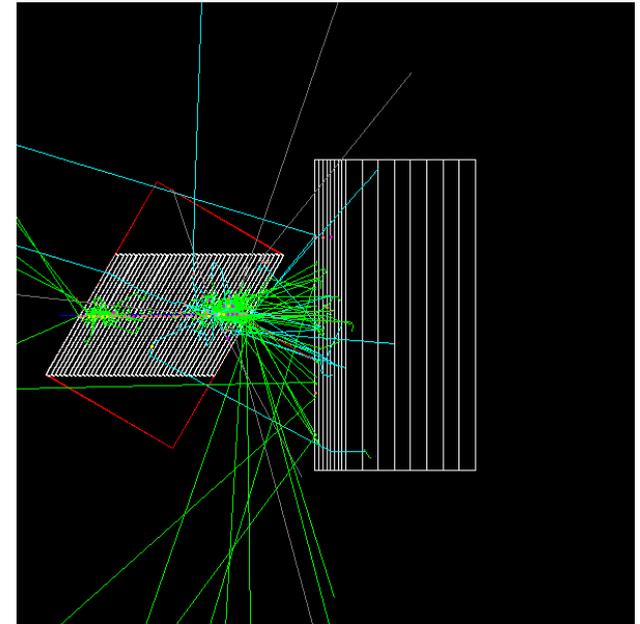
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TCMT update: new coordinate system

- Up to now, the TCMT driver (TBCatcher05) uses the (HCal position) plus the hcal-tcmt gap to determine the TCMT position
- What needs to be updated?
 - Got latest code from Mokka CVS, with updated hcal, dc, mc (ecal?)
 - Checked relative distances between sensitive elements for each setup:
 - TBCern0806 vs. TBCern0806_01
 - TBCern1006 vs. TBCern1006_01
 - Result: relative distances HCal-TCMT are the same, despite of different absolute HCal positions – no changes necessary

TCMT update: configuration angle

- Global parameter configuration_angle (for non-normal beam incidence)
Current TCMT driver moves TCMT away from HCal, to account for internal staggering of HCal layers (non-normal beam)
- Real HCal setups have no internal staggering, so TCMT should not move away from HCal
- So far, no data taken with non-normal beam. What is the expected behavior of the driver?
Is it ok to move the HCal away?
Comments/suggestions are welcome!



Summary

- The current TCMT driver (TBcatcher05) complies with the new coordinate system, no changes are necessary for now
Currently used for all TBCern0806 and TBCern1006 models (both old and new coordinate systems), only DB parameters are different.
- For the future, it may be interesting to add new TCMT positioning parameters `x_begin`, `y_begin`, `z_begin`, for better alignment control (independent of `configuration_angle`)