

Roman Pots, Off-Momentum Detectors, B0 thresholds

- Originally set at 1 keV for all three systems – this is likely aggressively low.
 - Average particle momentum in RP/OMD is > 100 GeV (> 200 GeV for top beam energy), and > 41 GeV in the B0.
 - Energy deposits average > 20 keV/hit from simulations \rightarrow 10 keV likely a good starting point to remove obvious background hits.
 - Checked in raw DD4HEP output and in standalone simulations.
 - Thresholds especially important for the B0 where backgrounds will be substantial.
 - No feel for the level of common noise from electronics right now \rightarrow something to evaluate in test beam with AC-LGAD + EICROC0.