

LAS for Track-based Alignment *update*

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CMS HH Alignment Meeting
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- Test of LAS-specific Misalignments with $Z \rightarrow \mu\mu$ Monte Carlo

MILLEPEDE SETUP

Misalignment

TEC Disks 1, 9 at design geometry
Disks 2 to 8 misaligned ('gaussian'):
x: 112 μm
y: 206 μm
phi: 100 μrad

Alignment

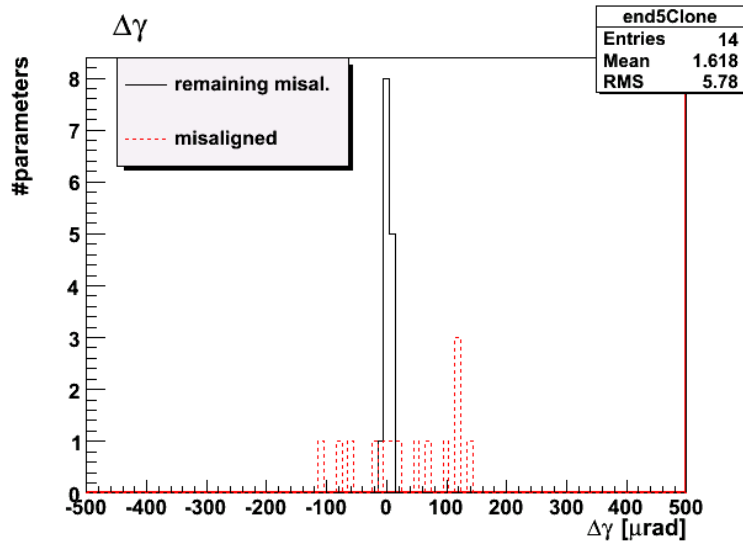
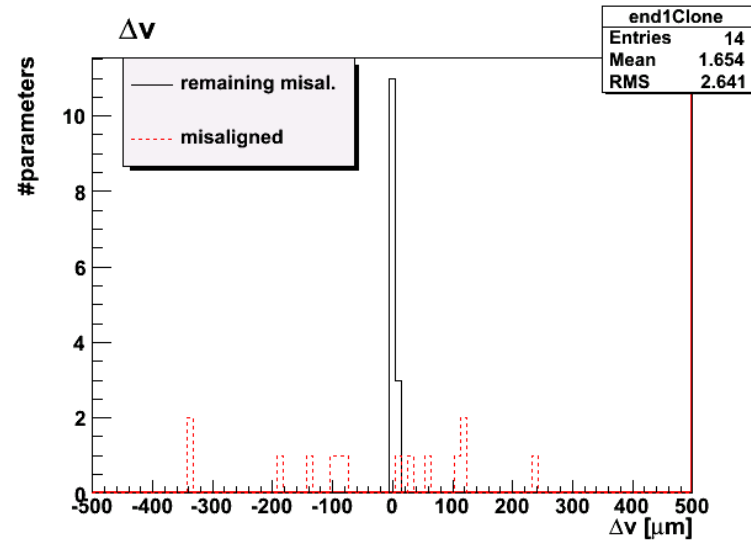
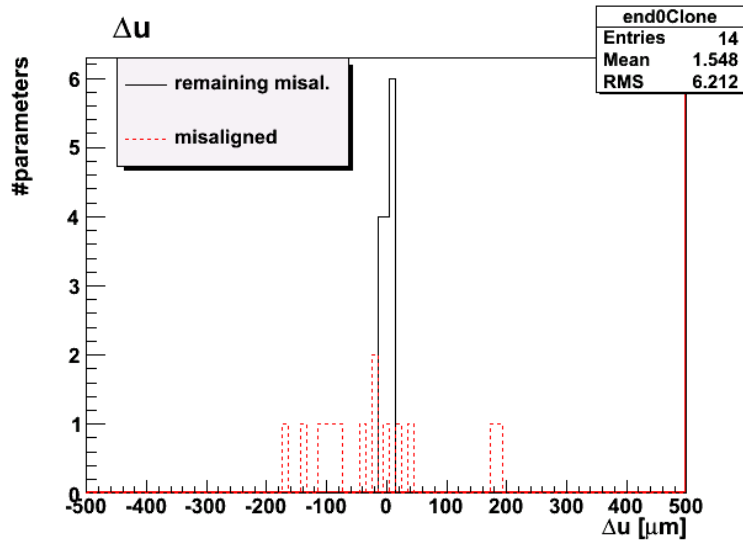
TEC Disks 1, 9 fixed
Disks 2 to 8 aligned in x, y, phi

Data Sample

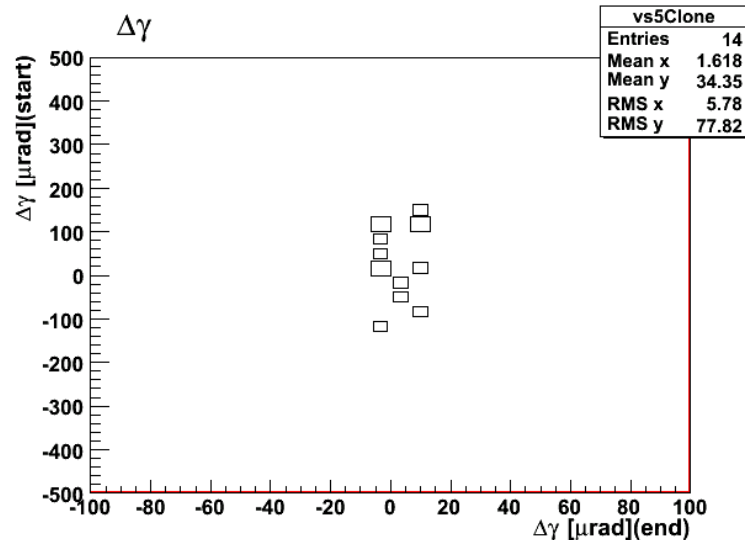
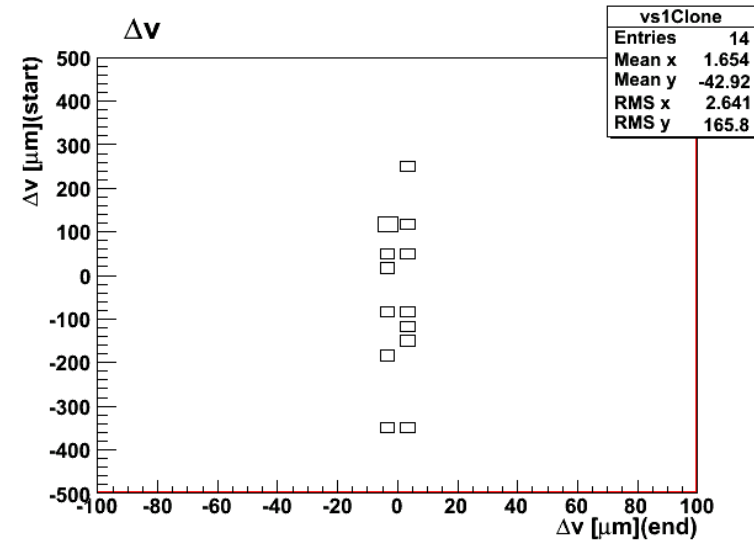
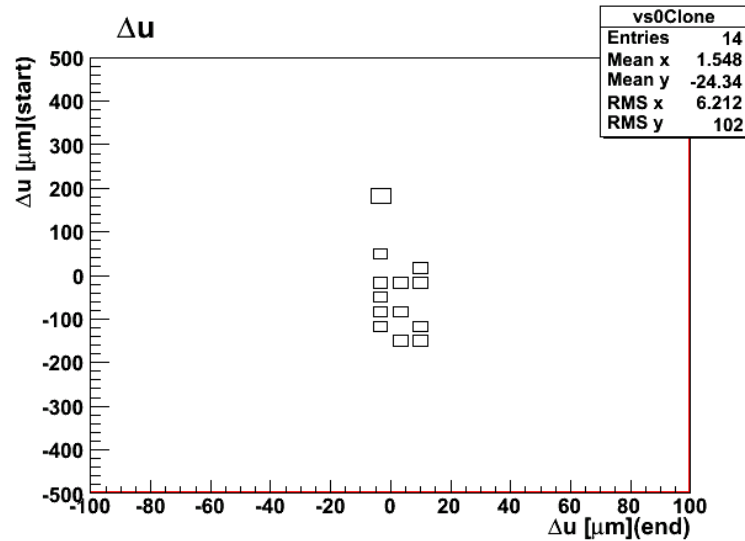
ALCARECOTkAlZMuMu from 2_1_9: $\sim 710,000$ events

require at least 5 hits in TECs, $p_T > 10 \text{ GeV}$

RESULTS



RESULTS



- good recovery of misalignment
- some bias left in all three parameters
- v better aligned than u (with larger misalignment)