

# Removal of *GlobalPositionRcd* from Alignments

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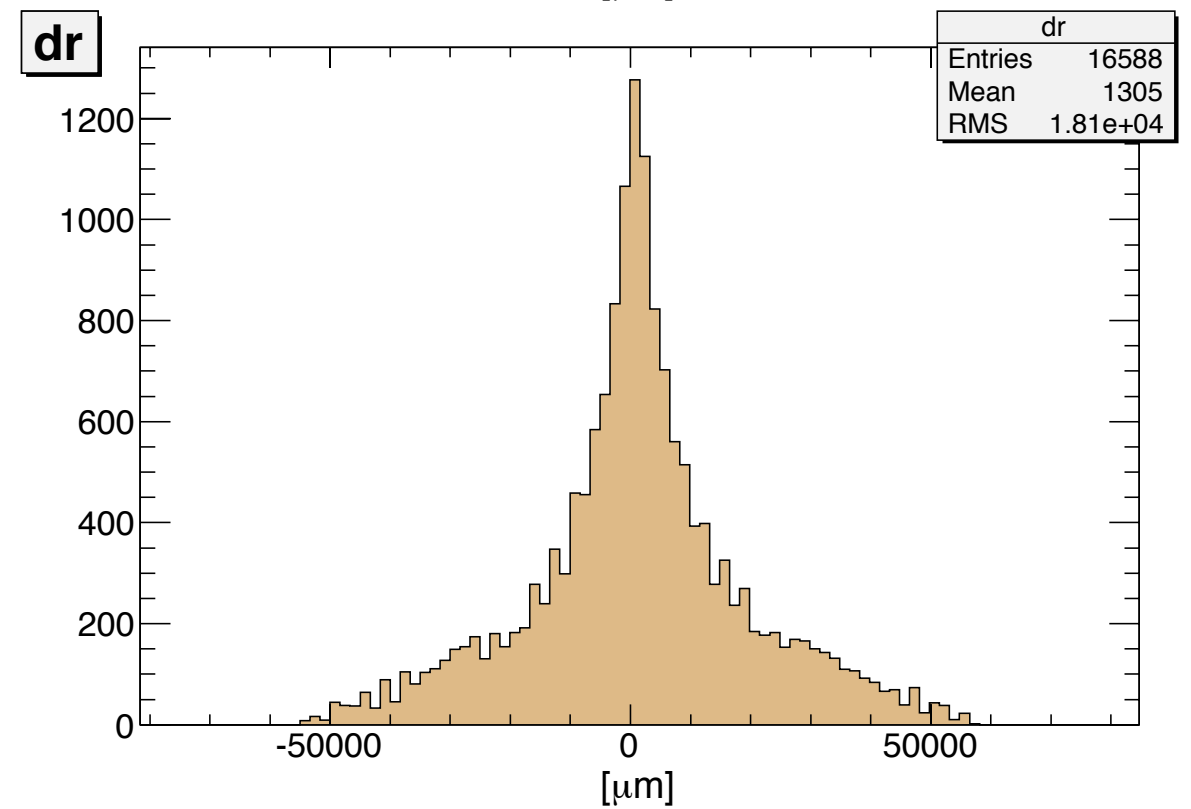
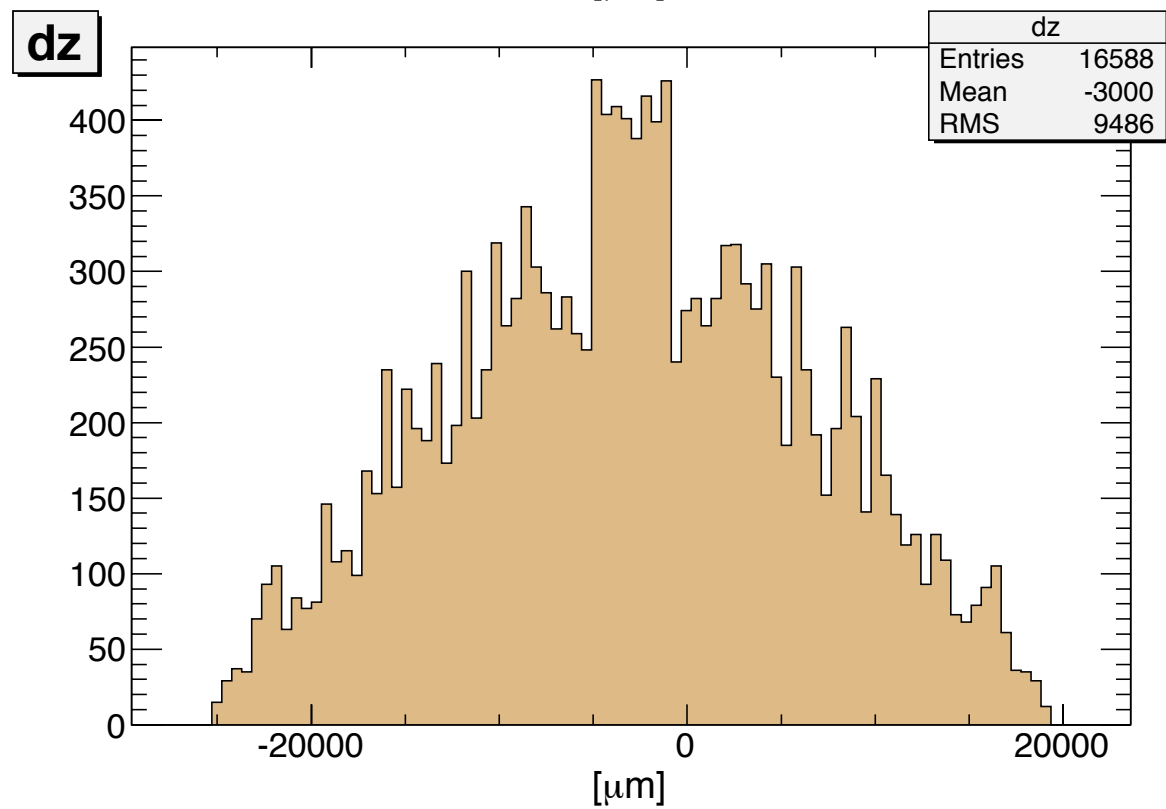
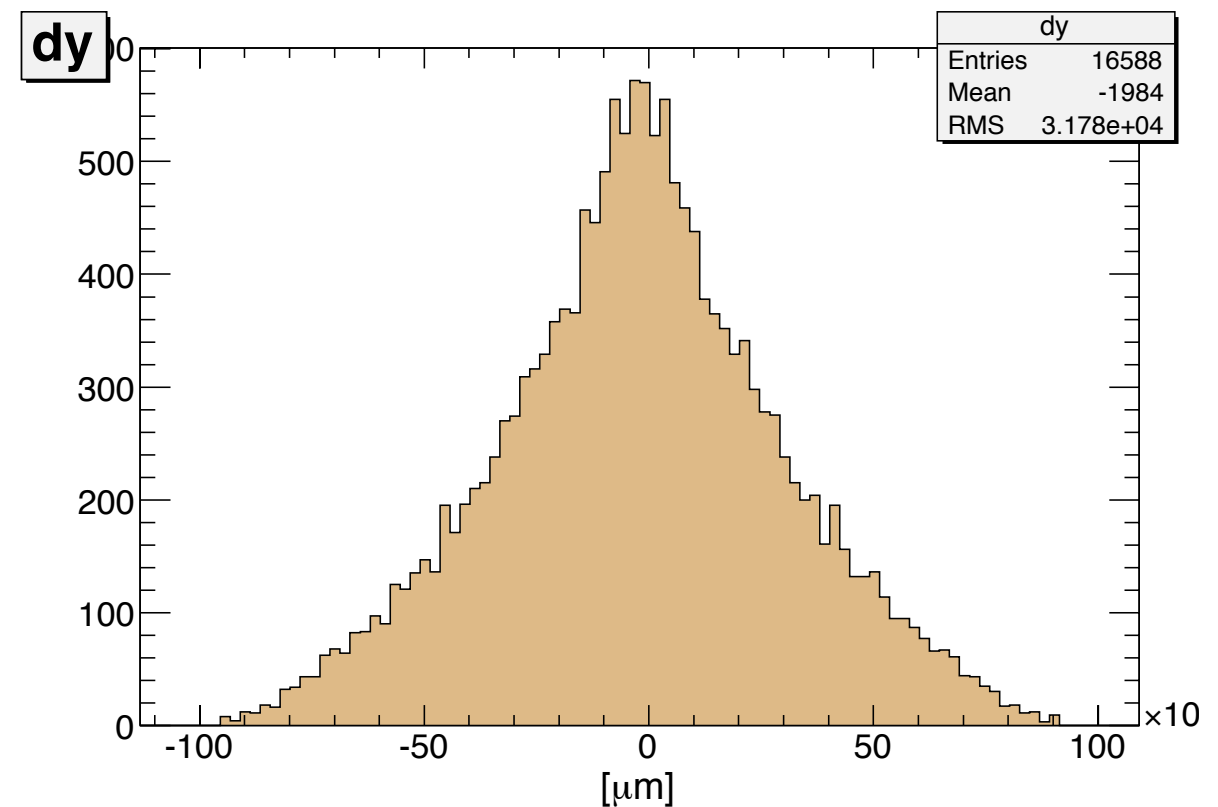
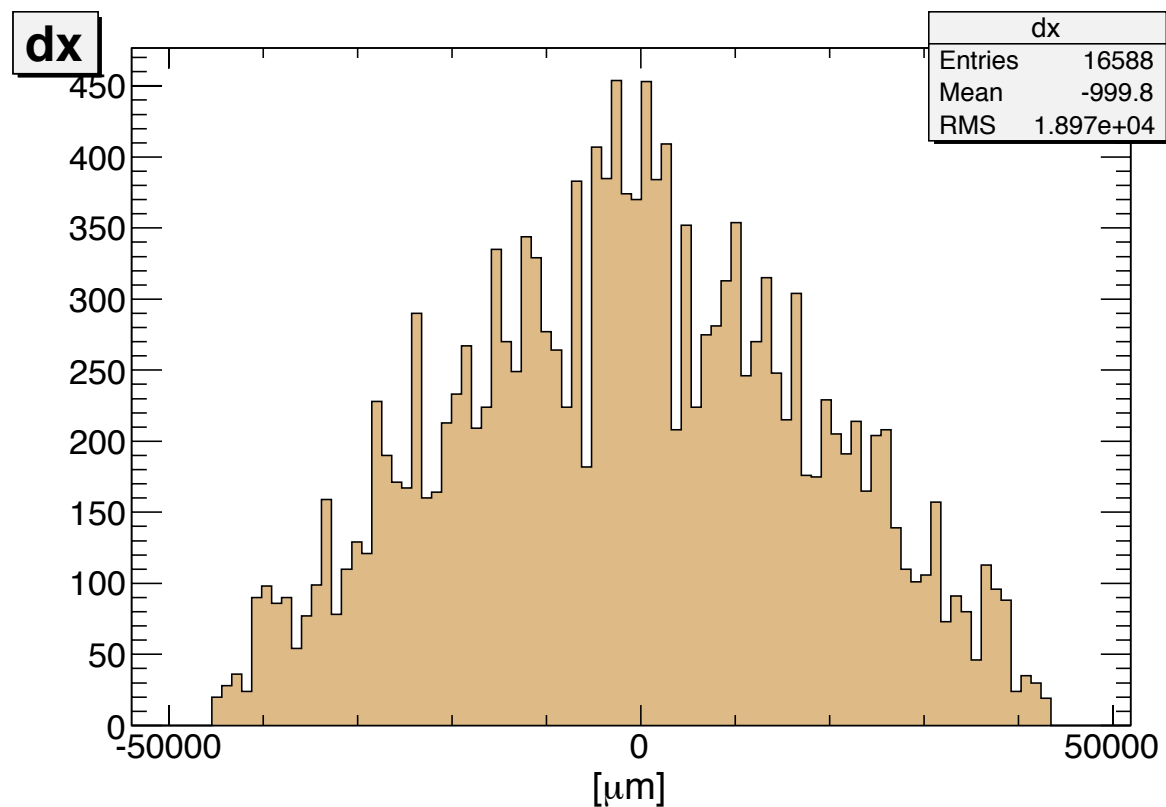
DESY/HH Alignment Meeting, 05/01/2010

# Recap and Introduction

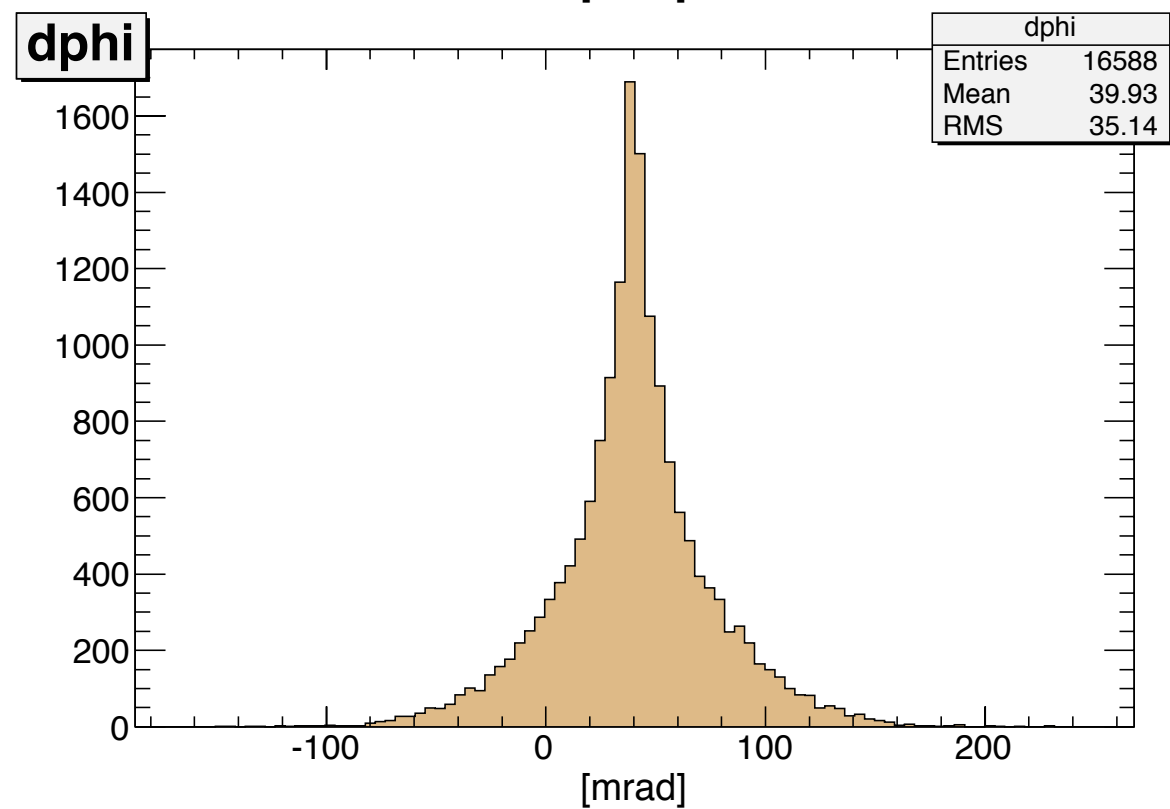
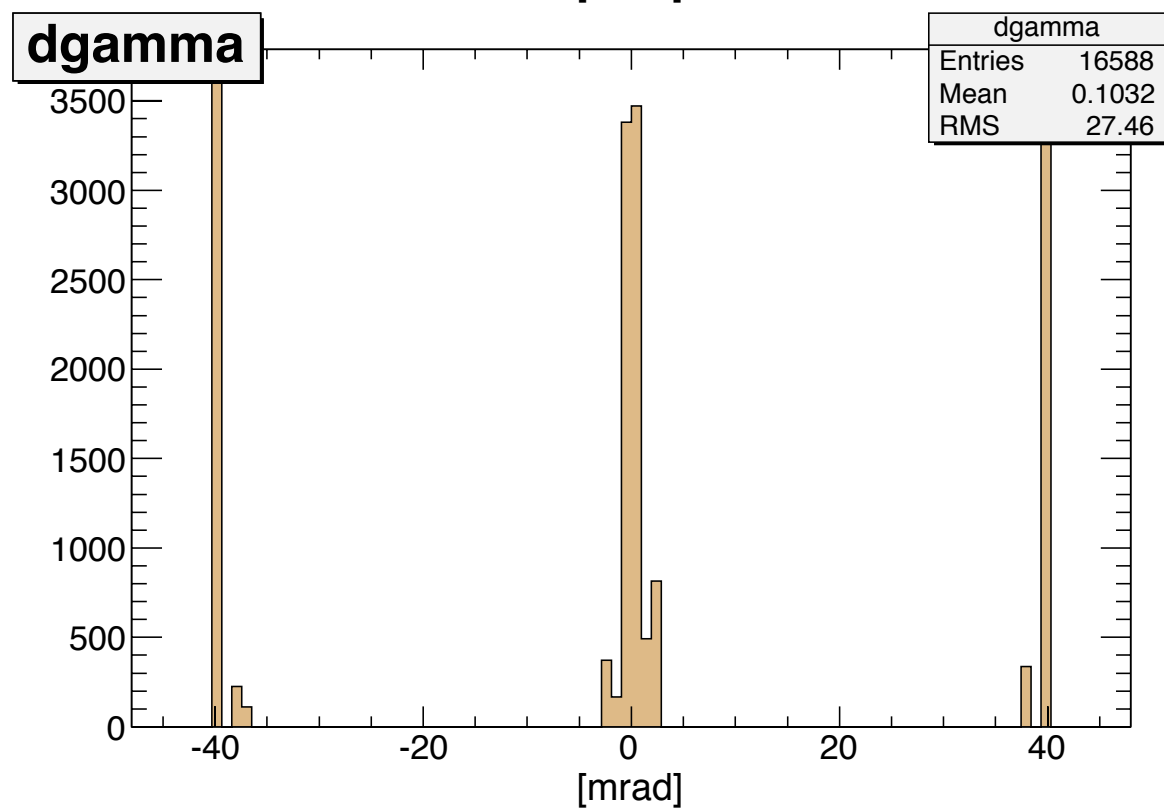
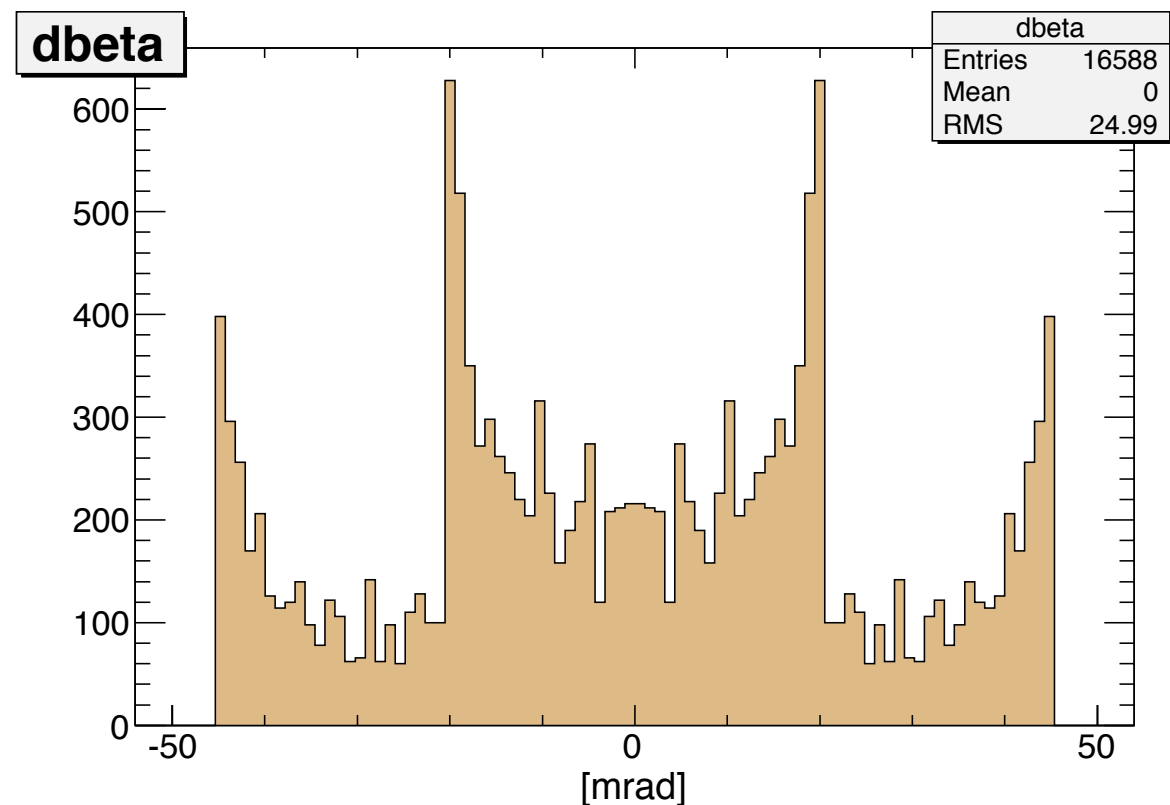
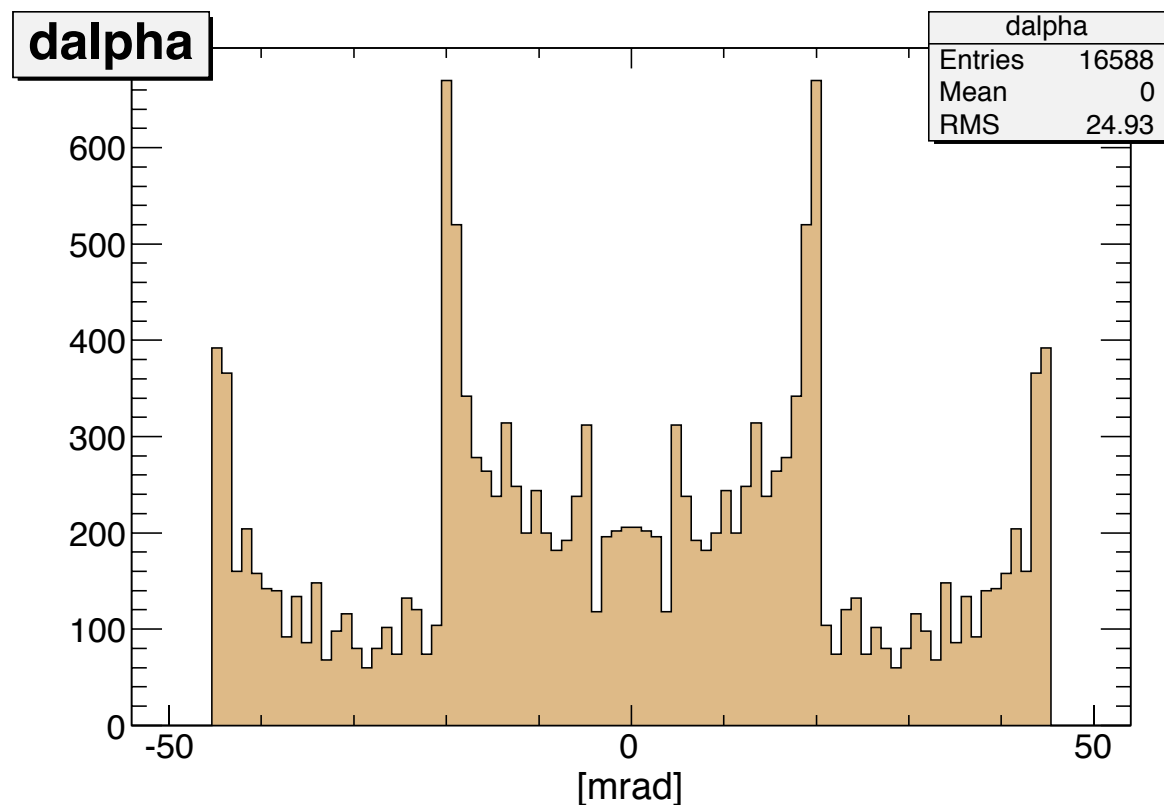
- See talk by Gero for all details
  - Alignments written to DB as absolute positions and orientations
  - If *GlobalPositionRcd* is applied in *AlignmentProducer* DB will also contain these extra alignments (Tracker, Muon, ECAL, HCAL)
  - Need to remove *GlobalPositionRcd* before writing alignments to DB
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- Alignments from *GlobalPositionRcd* removed in *AlignmentProducer::writeDB*
  - Implemented as additional method in *GeometryAligner* (*Geometry/TrackingGeometryAligner*)

- Use dummy *Mille* job to write initial geometry to DB (sqlite file)
- Create dummy *GlobalPositionRcd*
  - $dx = 0.1 \text{ cm}$ ;  $dy = 0.2 \text{ cm}$ ;  $dz = 0.3 \text{ cm}$
  - $\psi = 10 \text{ mrad}$ ;  $\theta = 20 \text{ mrad}$ ;  $\phi = 30 \text{ mrad}$
- Apply dummy *GlobalPositionRcd* and write geometry to sqlite file WITHOUT removal code
- Apply dummy *GlobalPositionRcd* and write geometry to sqlite file WITH removal code
- Use *TrackerGeometryCompare* to compare contents of the different sqlite files

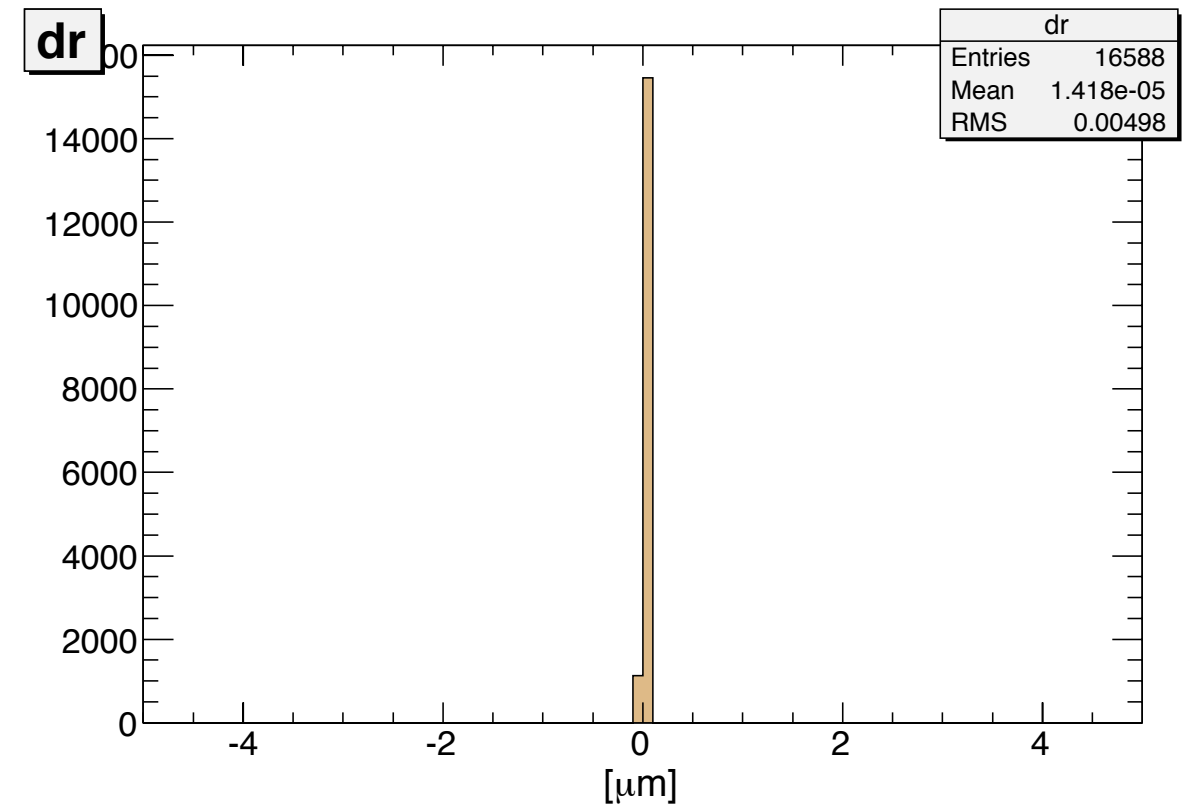
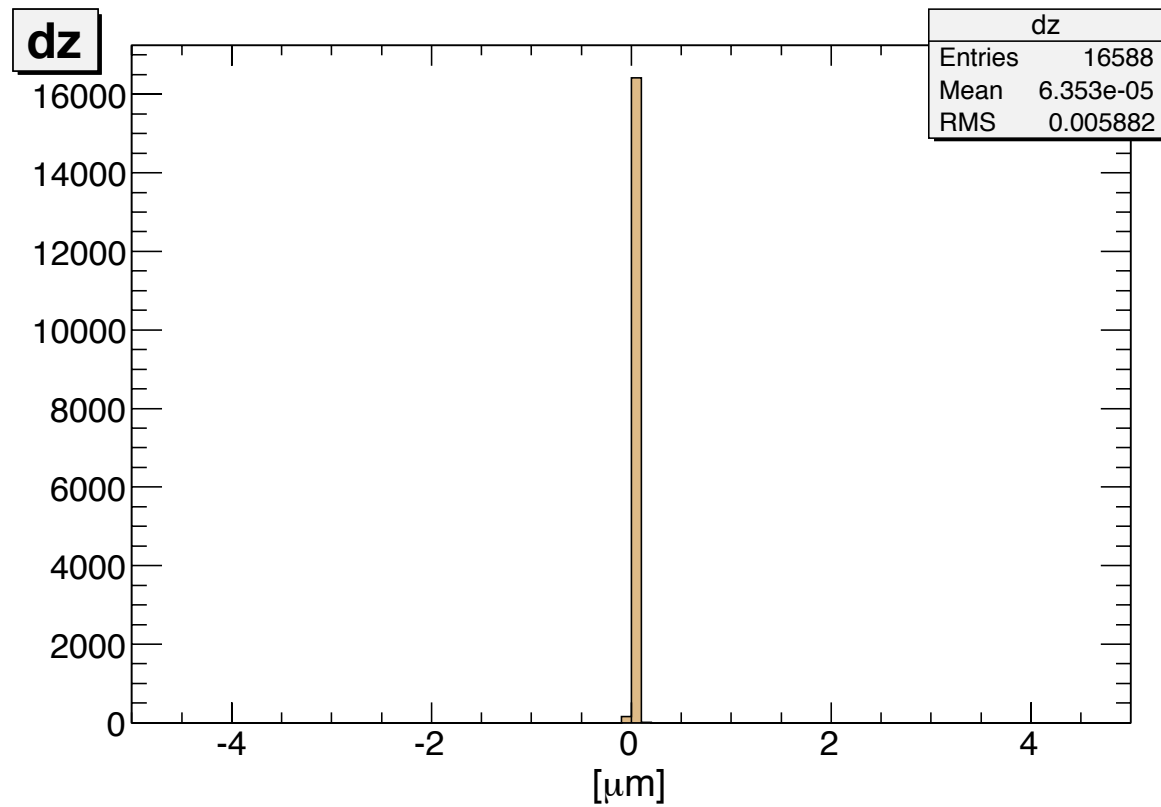
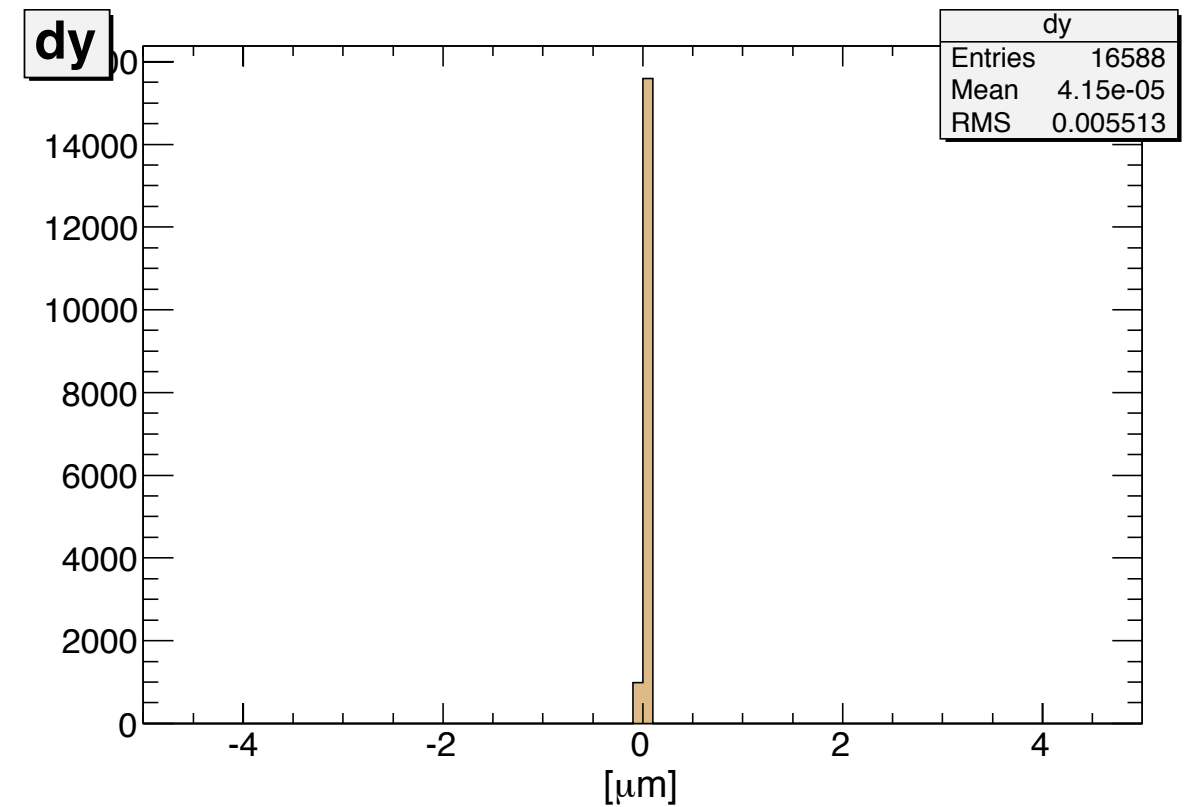
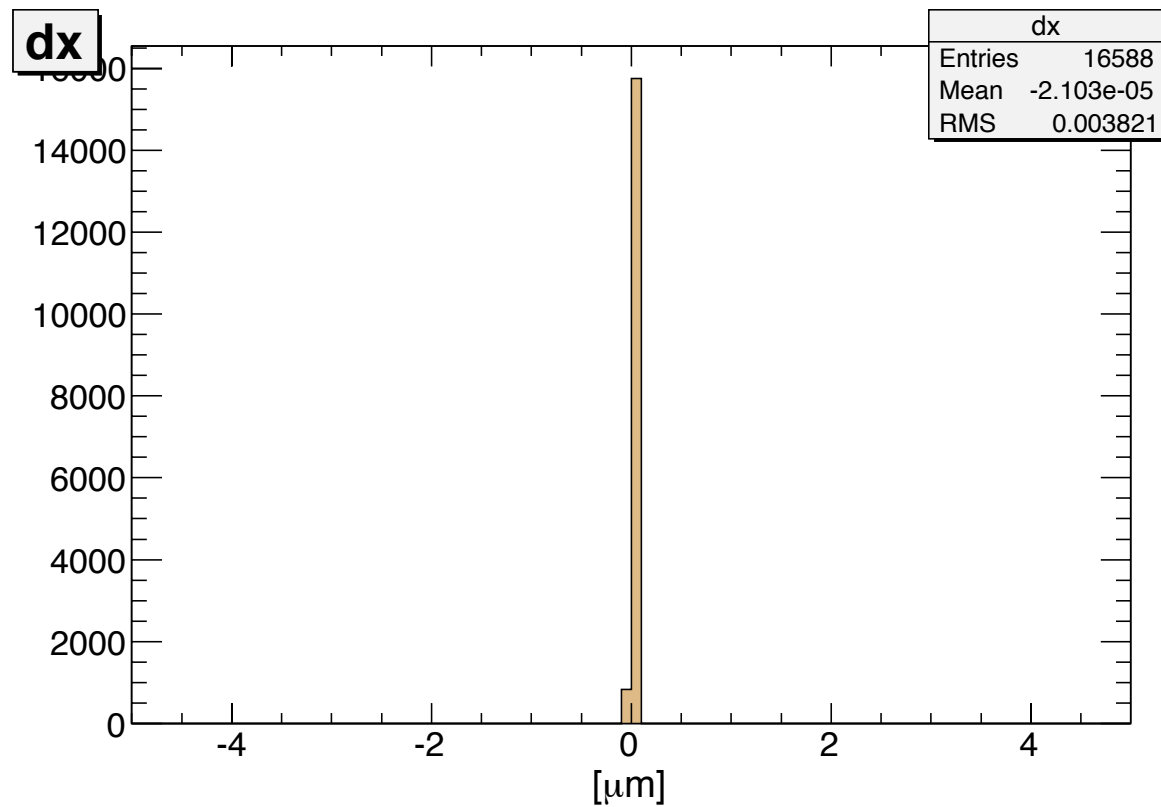
# Comparison - Initial to applied GlobalPositionRcd I



# Comparison - Initial to applied GlobalPositionRcd 2



# Comparison - Initial to applied and removed GlobalPositionRcd I



# Comparison - Initial to applied and removed GlobalPositionRcd 2

