

# Fake Tracking

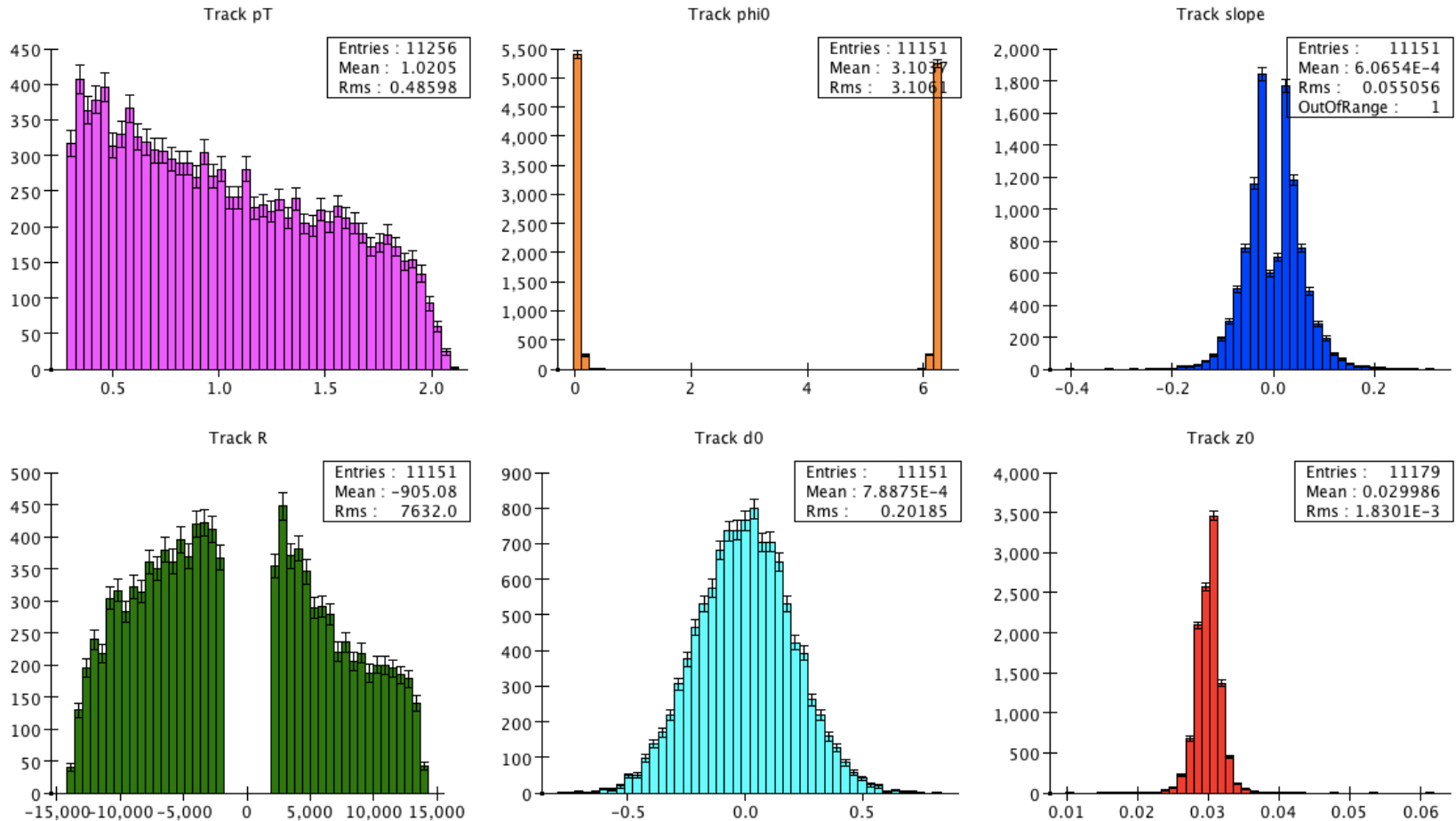
Pelle

# Fake Hits

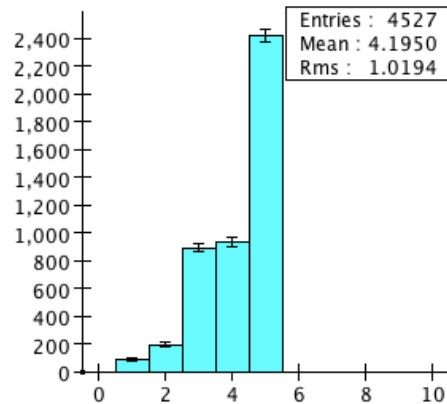
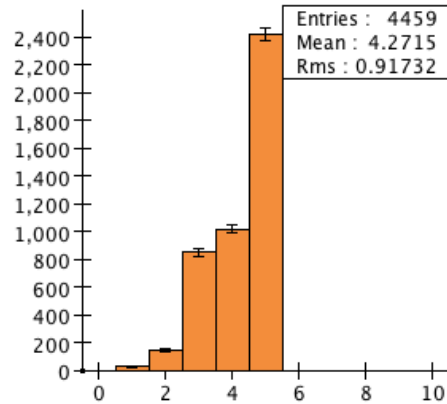
- Generate fake hits following helix
  - Test software, debug features in alignment
  - Useful for other fitters?
- Method
  - Generate an ideal helix (momentum vector)
  - Create hits at interception with sensors
    - Option 1: Add strip clusters (ready but need debugging)
    - Option 2: Add 3D hits (stereohits) **TODAY**
    - Option 3: Add SimTrackerHits (not ready)
  - Use all standard software from this point
- Notes
  - I added empty scattering map to removed MS in the HelixFitter

# Generated track parameters

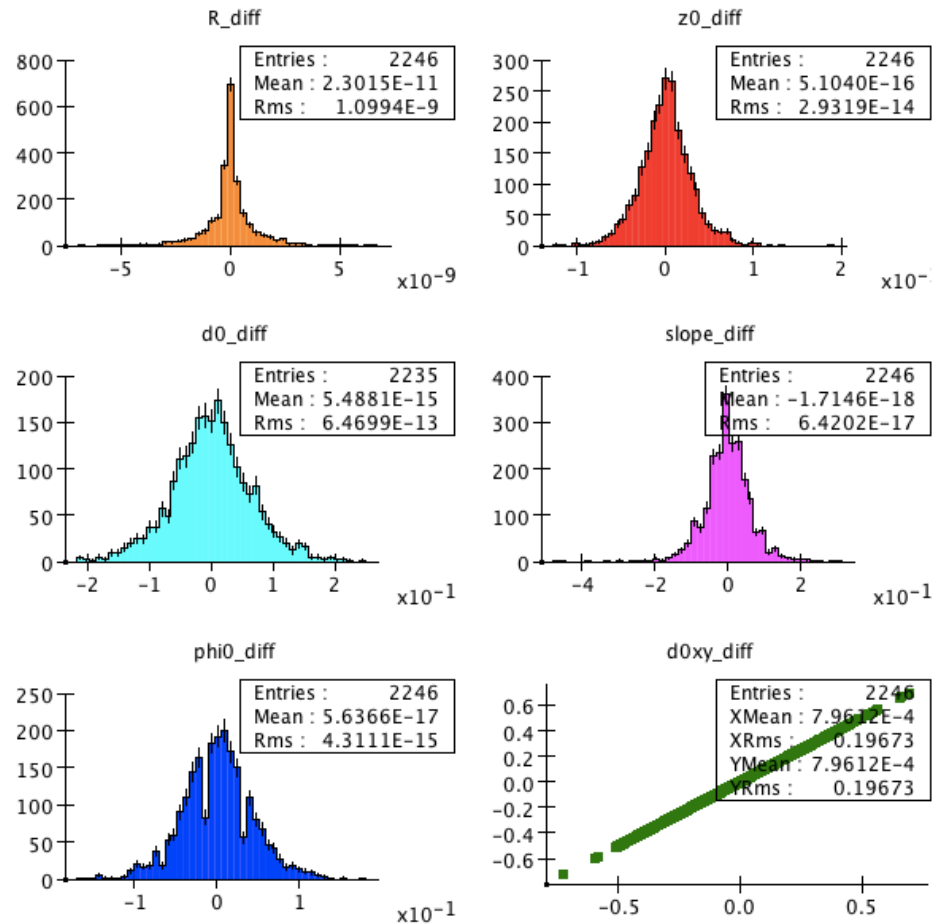
Note: single track per event to simplify debugging (that's why pT distribution looks weird)



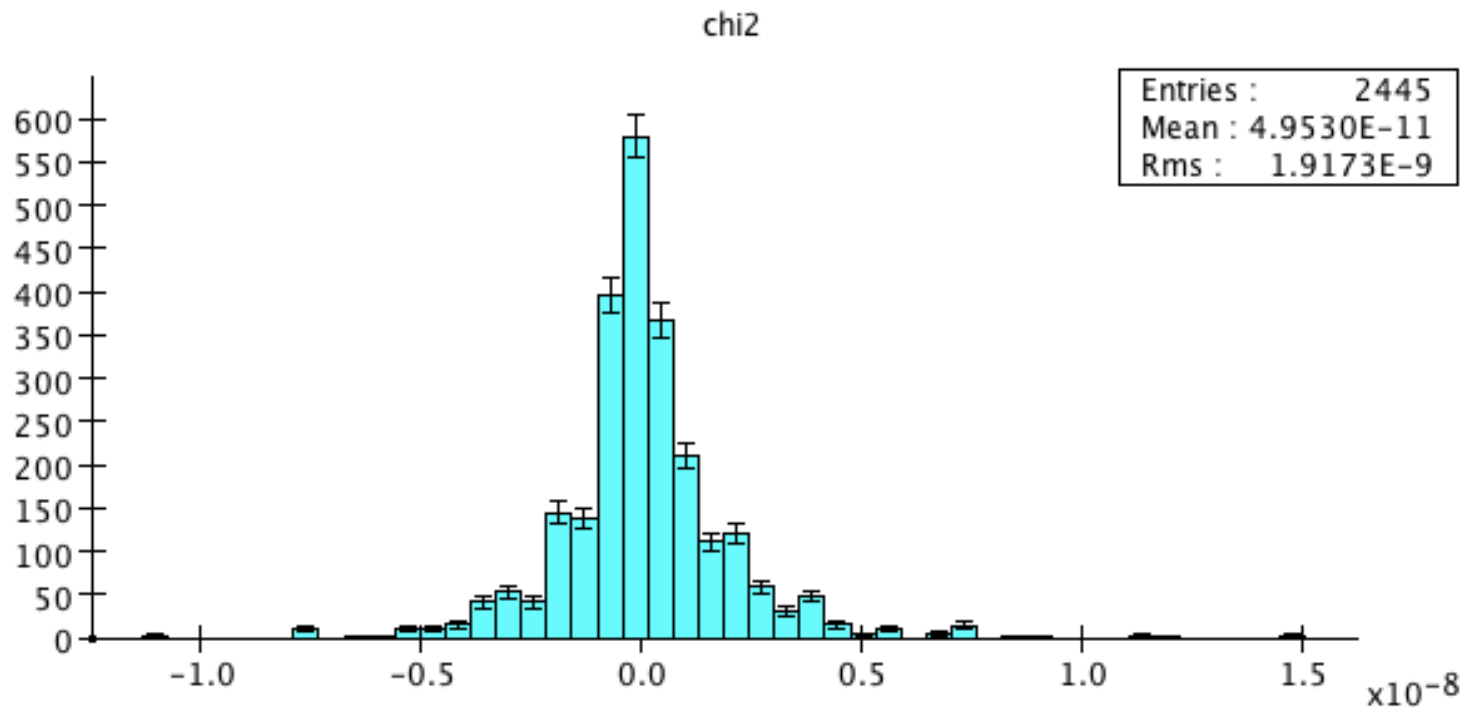
# Number of 3D fake hits per track



# Generated track vs fitted track

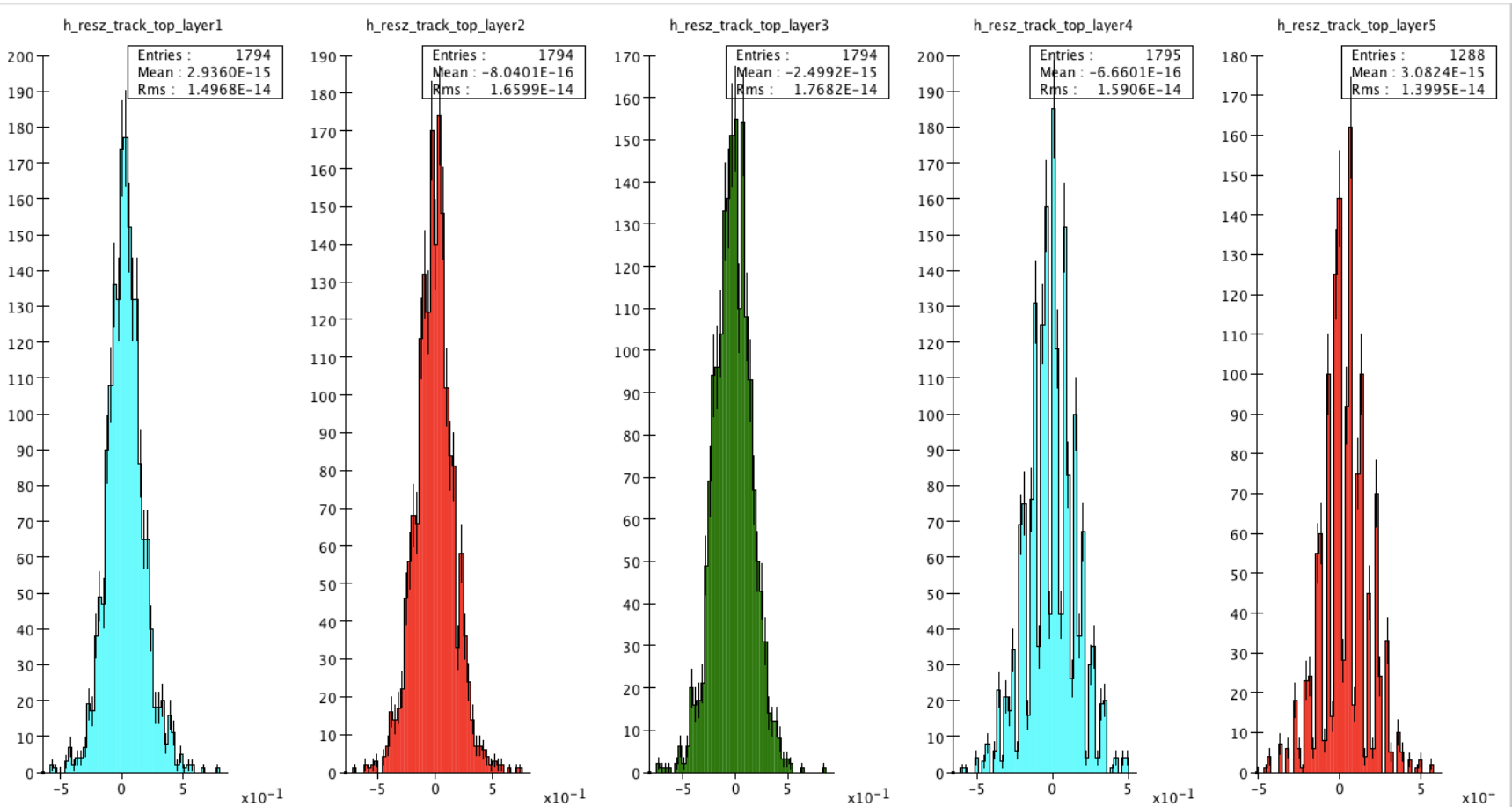


# Track Chi2



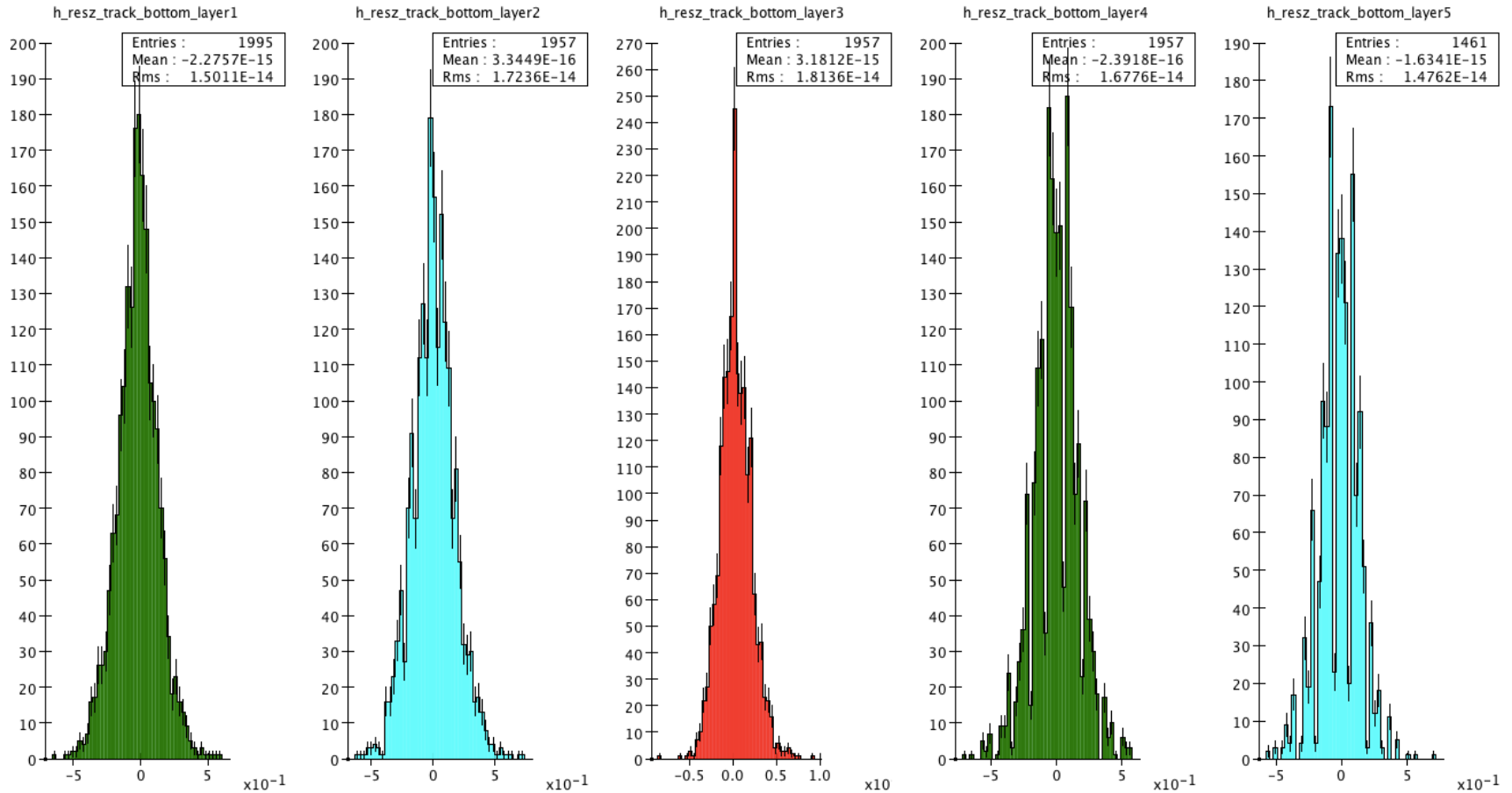
# Residual in vertical direction (JLab y)

Top



# Residual in vertical direction (JLab y)

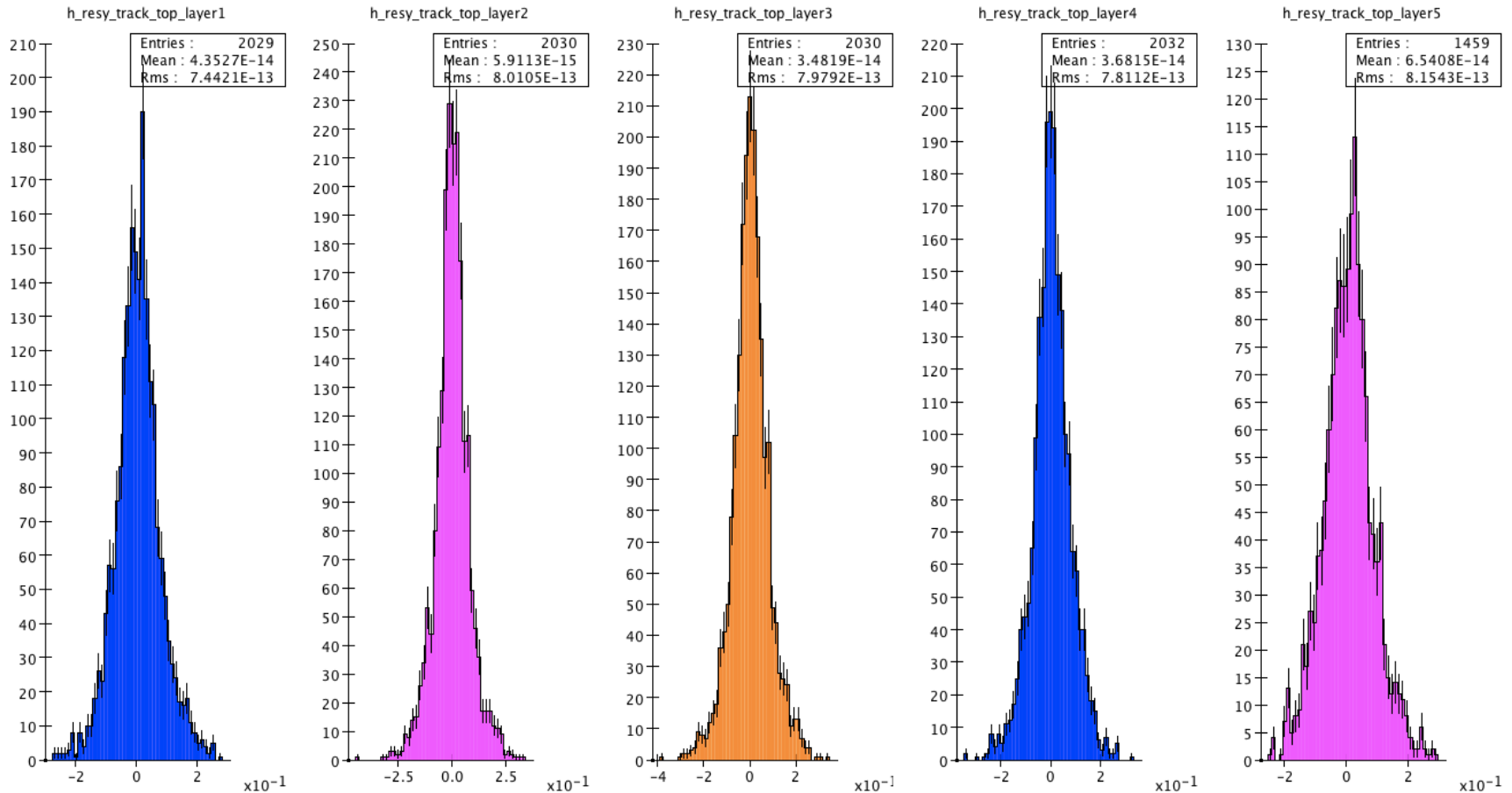
Bottom





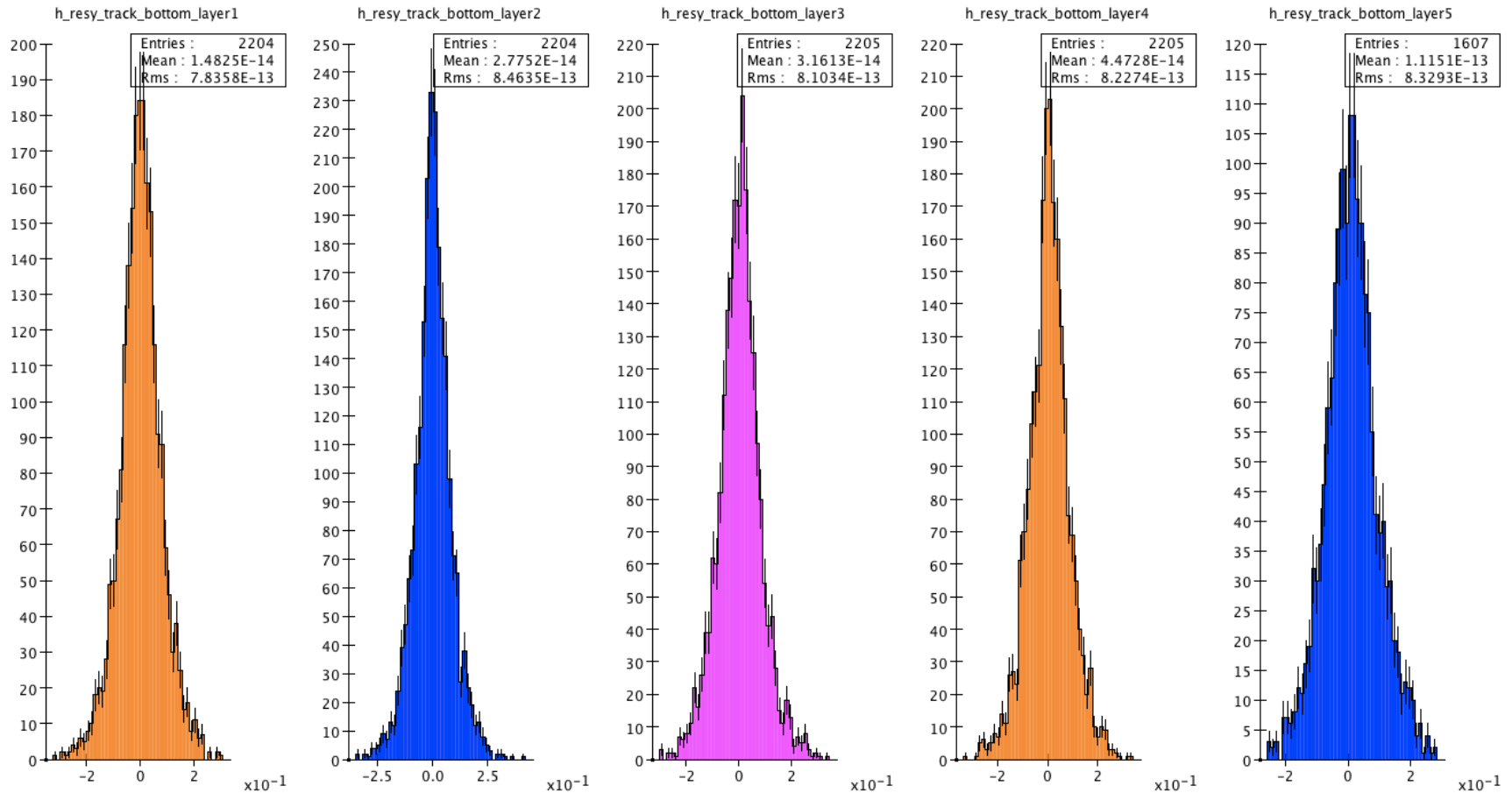
# Residual in horiz. direction (Jlab x)

Top



# Residual in horiz. direction (Jlab x)

Bottom



# Mean of residuals vs tracking plane

