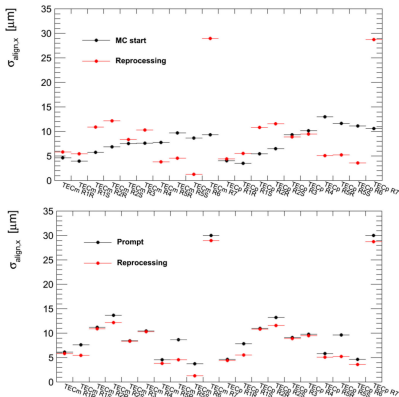


APE and TEC Ring 7

Gero Flucke

DESY

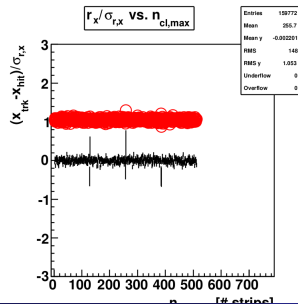
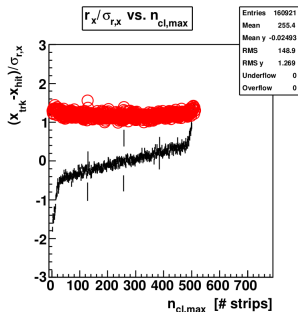
CMS Hamburg Alignment Meeting
March 26th, 2013



Introduction

- 2011 APE in TEC up to about $12 \mu\text{m}$.
- “Summer2011” more fluctuating than (2011) MC startup scenario.
- But generally data and MC in same ball park.
- TEC ring 7 sticks out: much worse in data!
- Why??

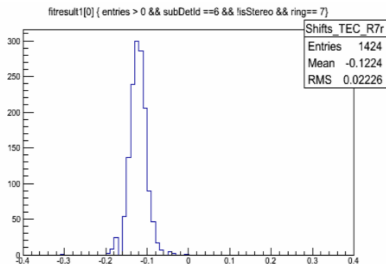
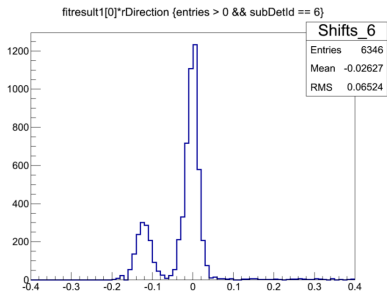
Normalised Residuals vs Strip



From J. Hauk

- Upper plot: 2011 data.
- Lower plot: MC.
- StripCPEGeometric.
- 3 strip clusters (middle strip highest charge).
- Normalised residuals x' as in offline validation.
- Would like to see other TEC or TID rings since R7 is special: local y-axis has opposite orientation!
- Non-normalised and default CPE would be nice as well. . .

Misalignment in Local y



- Local y -shifts of modules measured by distributions of track positions in y for tracks with a hit on the module (V. Tudor, DESY summer student 2012).
- Upper plot: all TEC modules.
- Lower plot: TEC R7 modules.
- Only ring 7 seems to be off by $\Delta y > 1$ mm in general.
- Related to previous effect? Probably not. . .