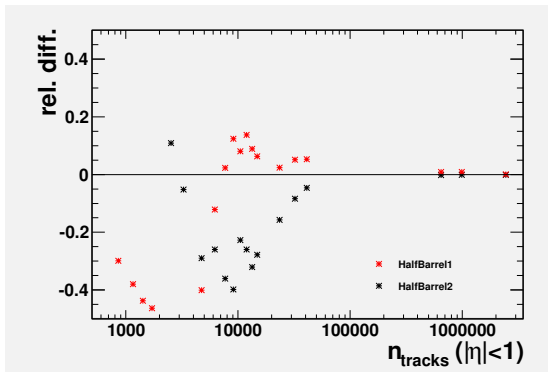


Pixel Half Barrel Alignment - Misalignment Scenario (Update)

- **MC** → **Fall10 MinBias 7TeV-pythia8 ALCARECO**
- misalignment scenario applied to ideal MC geometry
 - pixel half barrels **shifted** by $\pm 20 \mu\text{m}$ (fixed) along **global z direction**
- **track cuts:** $p > 3 \text{ GeV}$, $p_T > 0.65 \text{ GeV}$, $n_{\text{Hit}} \geq 8$, $-1 < \eta < 1$

- **relative difference**
between extracted
alignment constants and
applied movements
- only alignment constants
for the pixel half barrels
were determined

→ using ≈ 40000 tracks the
alignment precision is
about 5%



- with ≈ 2.4 million tracks a precision of $< 0.15\%$ can be reached