



Bows&kinks past - presence - future

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DESY/HH tracker alignment meeting 09.11.10

Past

- ★ Studies started in February
 - ▶ CRAFT09 cosmics, 200k tracks
 - ▶ MP still limited to 8GB, 80k par. (sparsity 20%)
 - ▶ Restrictions to fit in MP limits
 - ✦ Only barrel (PXB, TIB, TOB)
 - ✦ Only kinks or bows (rely on orthogonality of Legendre pol.)
 - ✦ Higher order test ($N_l=3$)
 - Only module level
 - First and second order terms fixed (from $N_l=2$)
 - ▶ Triggered MP developments (64bit, comp., OpenMP)

Presence

★ Implementation

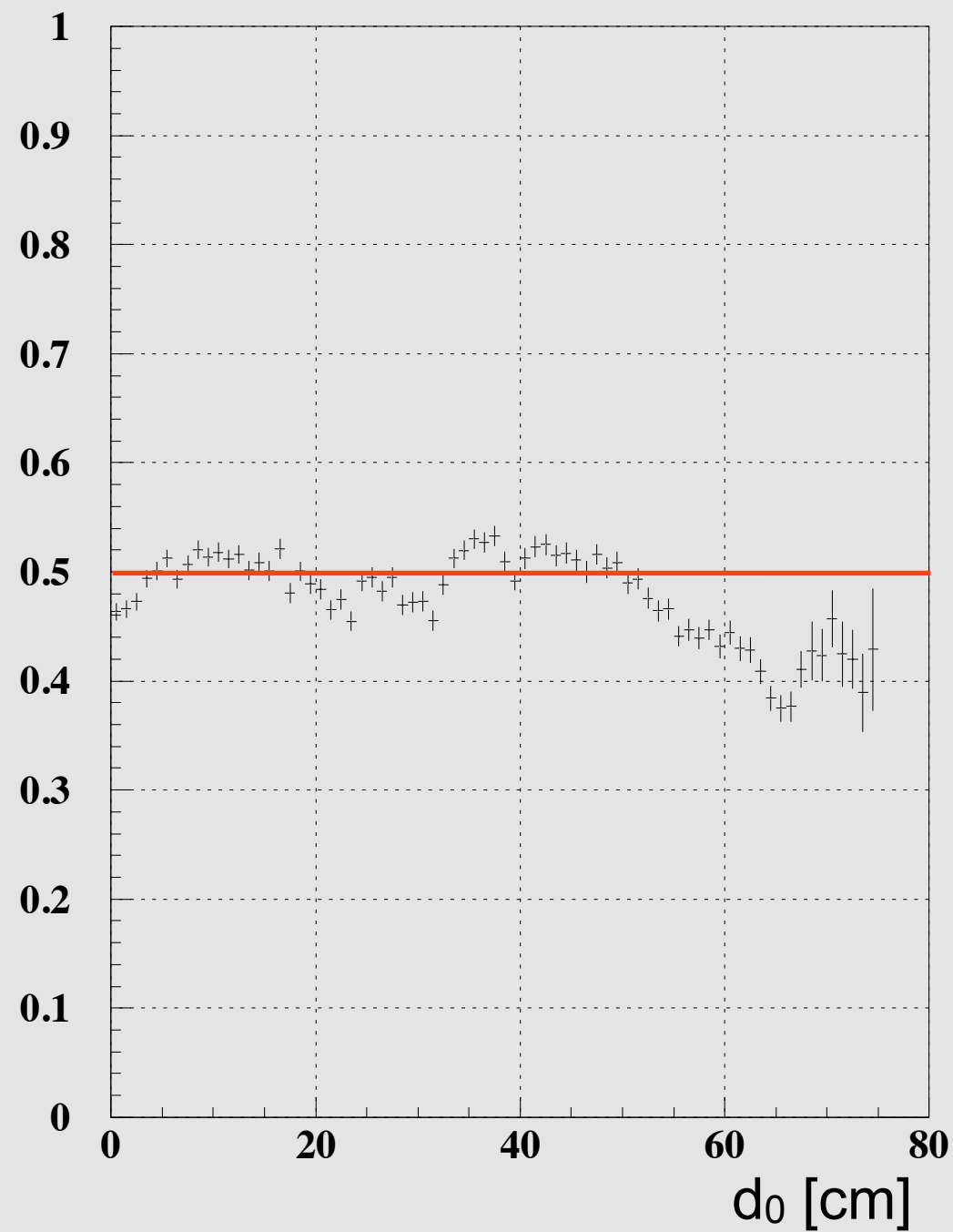
- In progress for alignment and reconstruction software (Gero, Andreas)

★ Constants

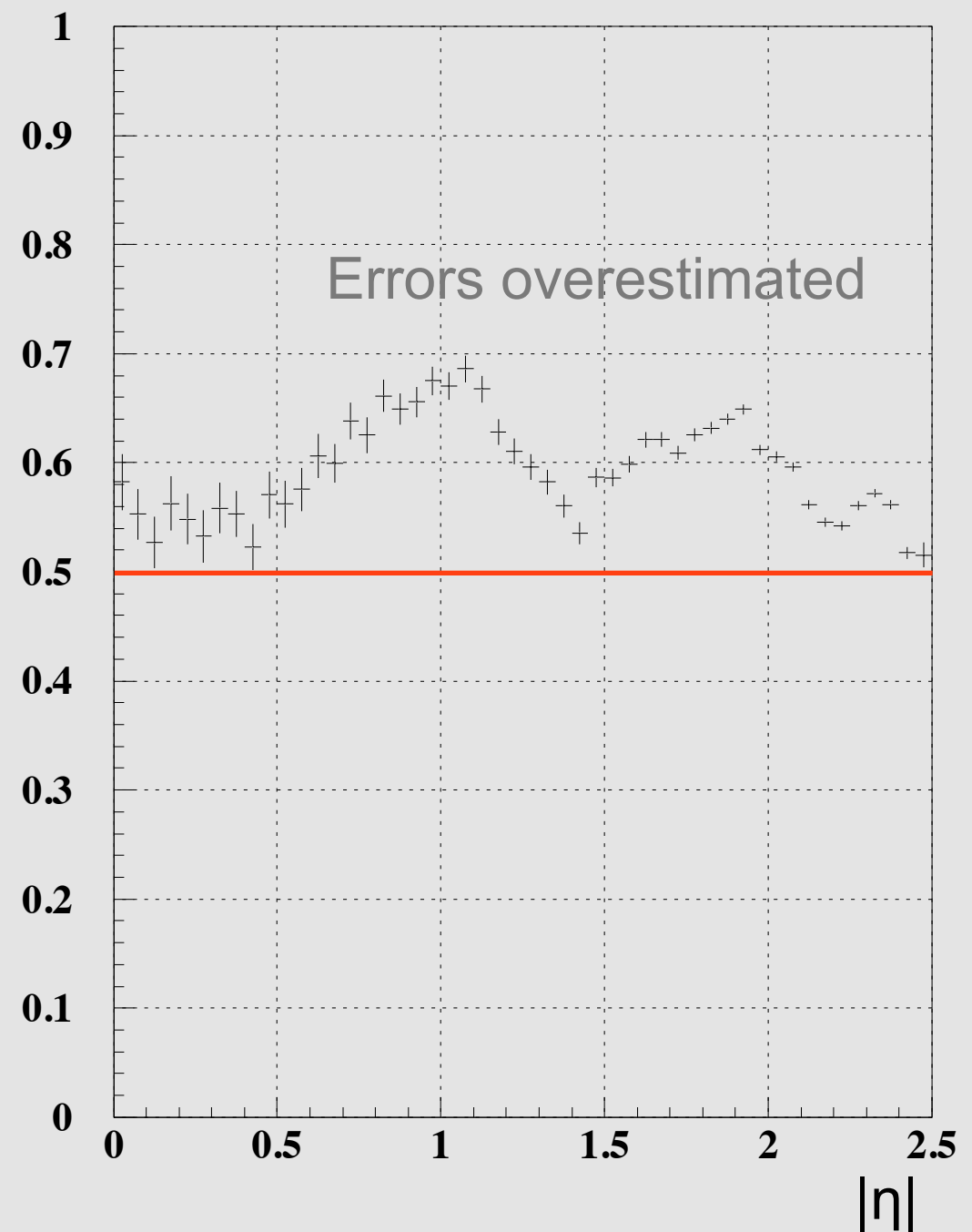
- Based on CRAFT10 and early MinBias (4.6M tracks)
- Redo with complete 2010 data ('A'-'F') ?!

MP local fit, $\text{prob}(x^2, \text{ndf})$

CRAFT10



MinBias



Future

- ★ Internal CMS note ?

- ▶ Would only be summary of various talks - worth it?

- ★ Redo systematic tests without MP limitations

- ▶ Full CRAFT10 statistics (1.8M tracks)
- ▶ On NAF MP server (promised before XMAS)
- ▶ Good opportunity to test that machine
- ▶ Run Mille on NAF (test for production in batch)
 - need to copy ALCARECO to DESY Tier-2
- ▶ Add/compare with CRAFT11

Summary - Outlook

- ★ Like to repeat systematics tests
- ★ More to learn from cosmics ?
- ★ Another construction site:
 - FineBrokenLines
 - ✦ Better implementation
 - ✦ Comparison with CoarseBrokenLines