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Message ID: **4051** Entry time: **Sun Apr 20 09:57:25 2008**

Run:	108
Author:	TP
Type:	Info
System:	General
Subject:	RA steering

RA steering for muons:

- new, 4-segment RA
- new 2.6 mug/cm² TD foil
- Ar/N2 moderator
- 15kV settings, L3/RA scaled by 0.96 to account for larger energy loss in TD foil

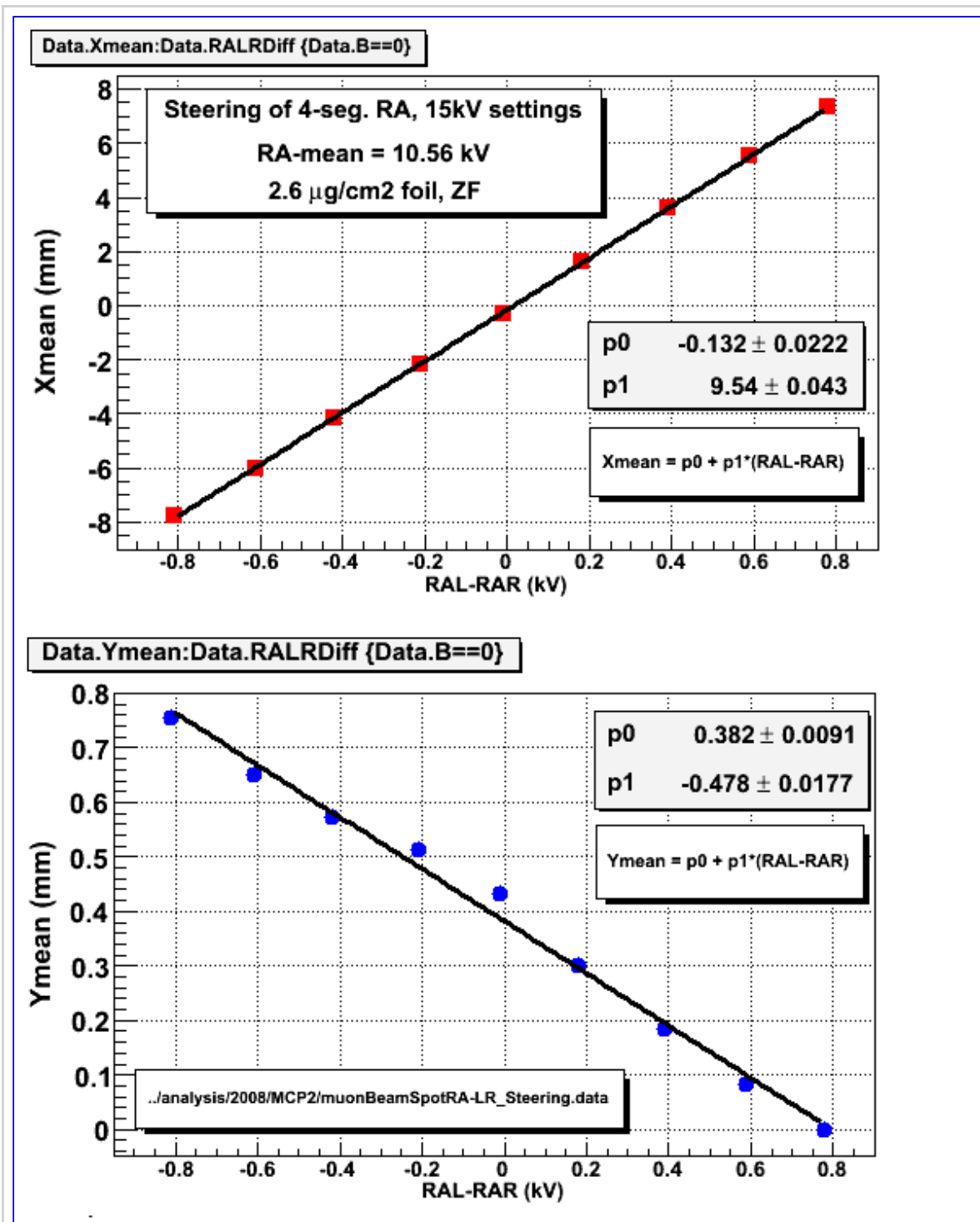
The LR steering is a bit smaller than for the 2-seg. RA last year: now, we get about 9.5mm/kV horizontal steering (and about -0.5mm/kV vertical), whereas it was about 13mm/kV (-17mm/kV vertical) last year, see [elog:LEM_Experiment/3119](#). However, in [elog:LEM_Experiment/3119](#) RA_mean was 11.5kV, whereas now it is 10.56kV. Therefore, last year the gradients were larger causing a larger steering effect.

ZF, 15kV settings:

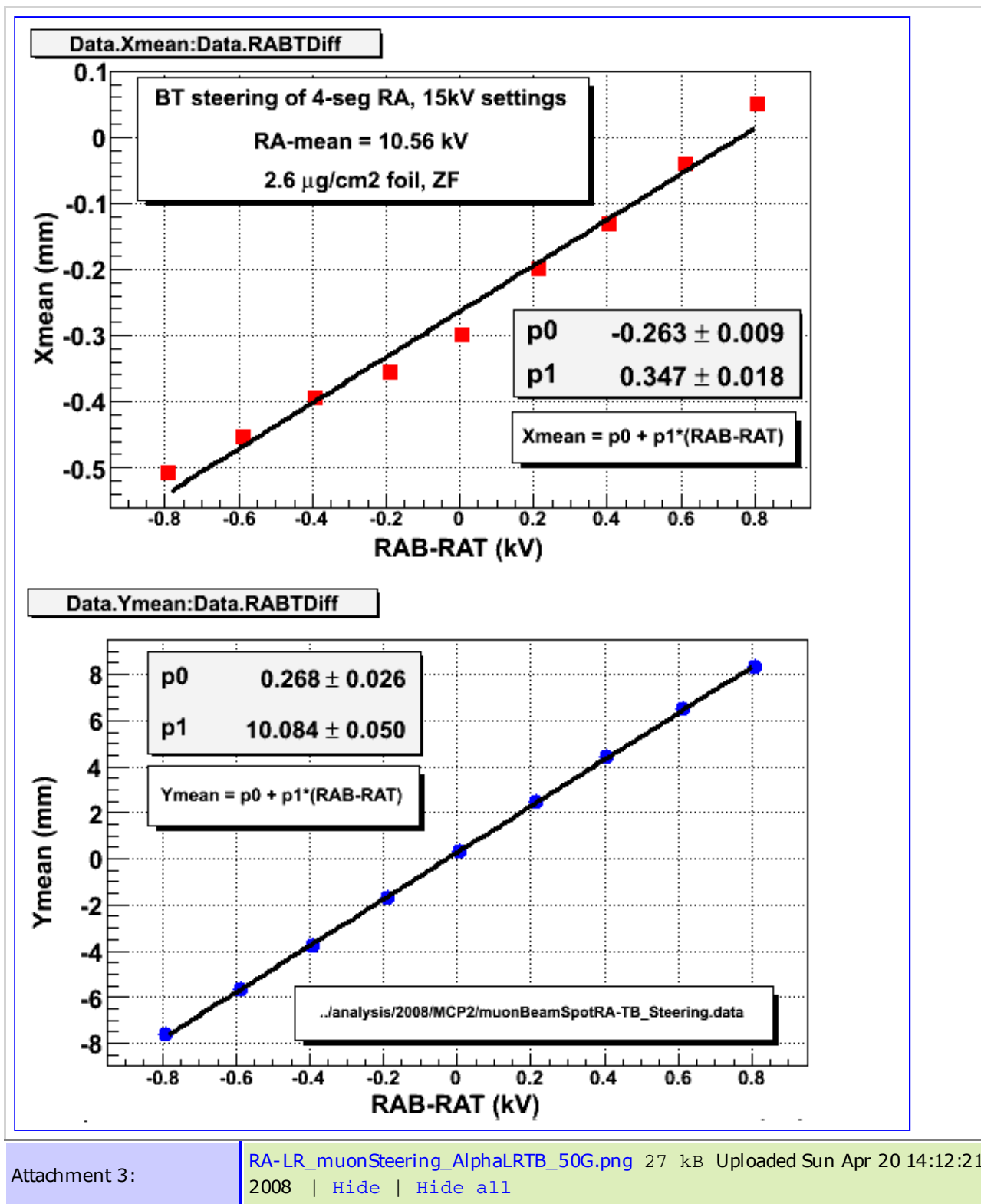
- LR steering (RAT = RAB= 10.56 kV):
 - mean-X = -0.31 + 9.54mm/kV * (RAL-RAR)
 - mean-Y = +0.38 - 0.48mm/kV * (RAL-RAR)
 - alphaLR = 0.97 + 0.222 * (RAL-RAR), 50GTF Helmholtz, from single hist. fits
 - alphaTB = 0.95 - 0.029 * (RAL-RAR), 50GTF Helmholtz, from single hist. fits
- TB steering (RAL = RAR = 10.56kV):
 - mean-X = -0.26 + 0.35mm/kV * (RAB-RAT)
 - mean-Y = +0.27 + 10.08mm/kV * (RAB-RAT)
 - alphaLR = 0.96 - 0.030 * (RAB-RAT), 50GTF Helmholtz, from single hist. fits
 - alphaTB = 0.97 - 0.232 * (RAB-RAT), 50GTF Helmholtz, from single hist. fits

Sun Apr 20 14:12:32 2008:
 Changed the units in the above list from kV/mm to mm/kV - I hope, this is, how it should be. [BW]
 Yes, thanks! Thomas

Attachment 1: [RA-LR_muonSteering_MeanPos_ZF.png](#) 29 kB Uploaded Sun Apr 20 11:17:30 2008 | [Hide](#) | [Hide all](#)

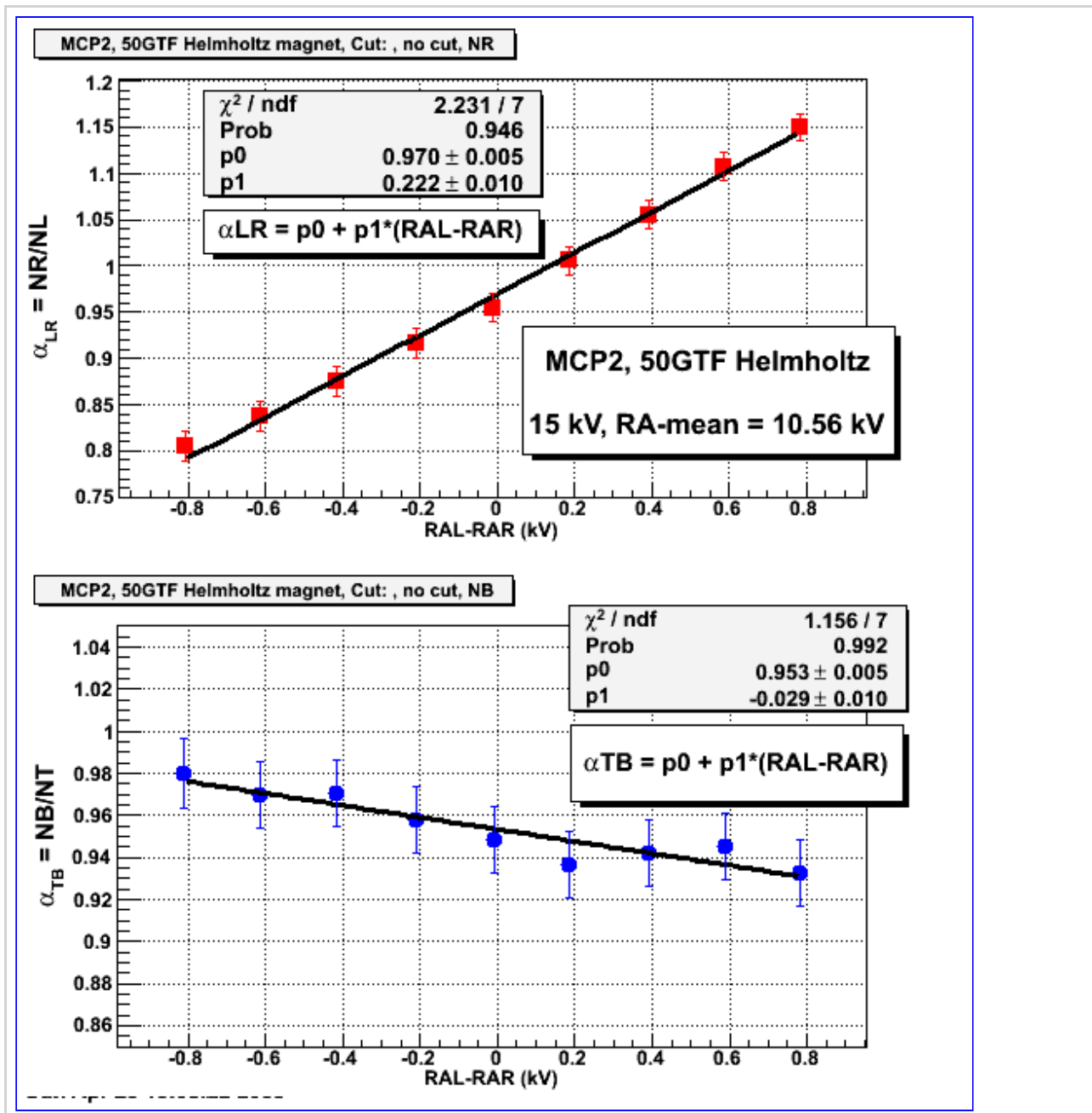


Attachment 2: [RA-TB_muonSteering_MeanPos_ZF.png](#) 28 kB Uploaded Sun Apr 20 12:50:54 2008 | [Hide](#) | [Hide all](#)



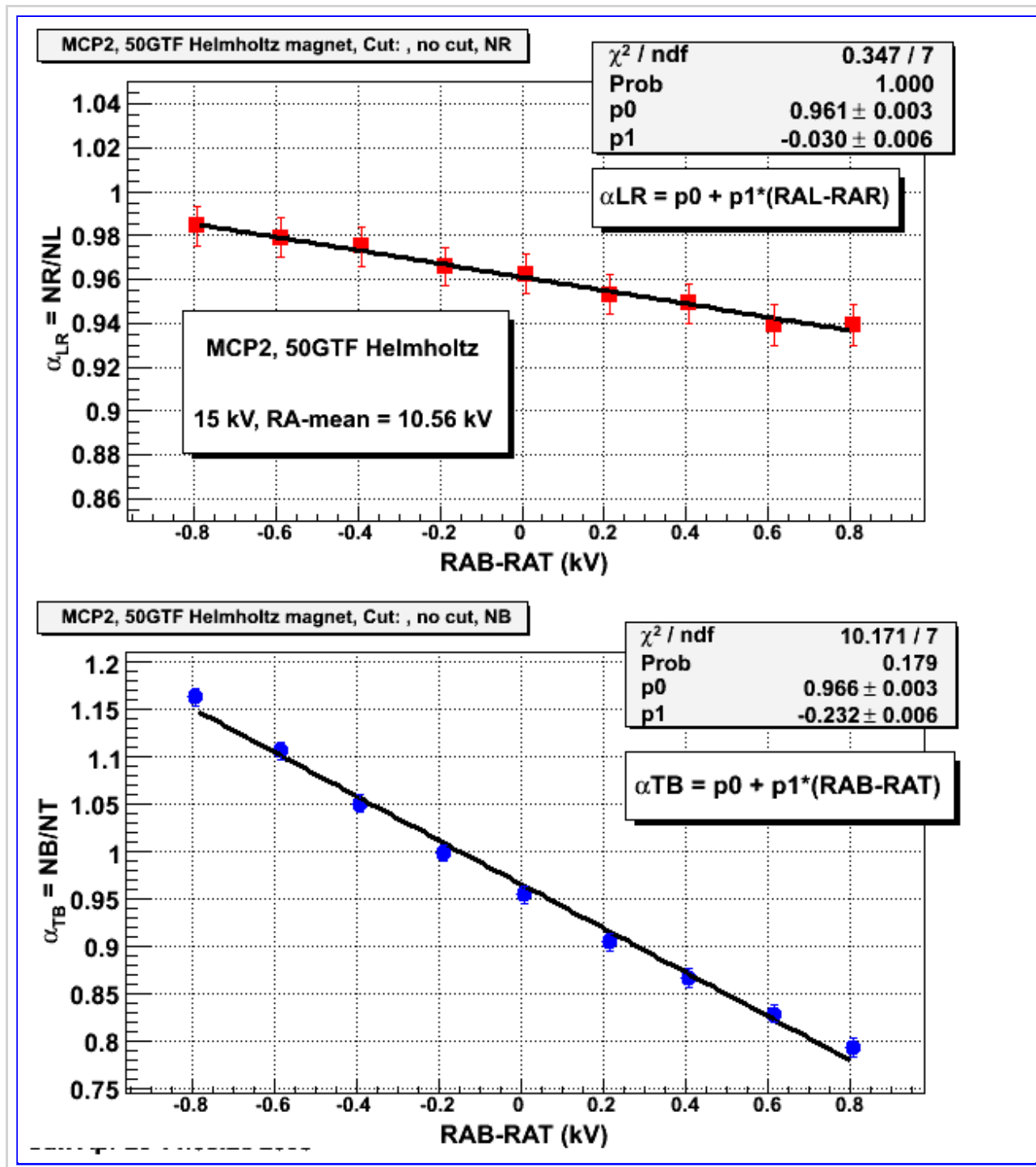
Attachment 3:

RA-LR_muonSteering_AlphaLRTB_50G.png 27 kB Uploaded Sun Apr 20 14:12:21 2008 | [Hide](#) | [Hide all](#)



Attachment 4:

RA-TB_muonSteering_AlphaLRTB_50G.png 30 kB Uploaded Sun Apr 20 16:00:22 2008 | [Hide](#) | [Hide all](#)



ELOG V2.7.8-2282