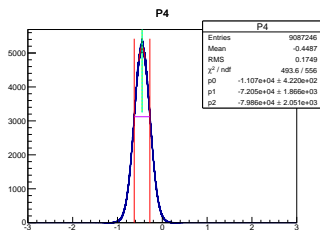# $B \rightarrow K^* \mu\mu$ statistical mystery
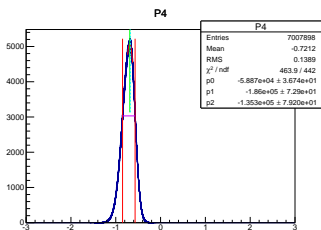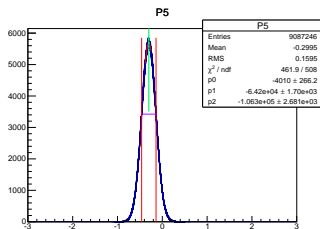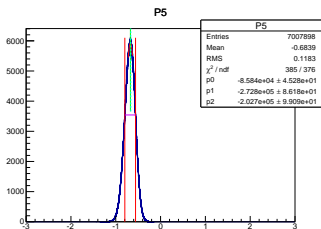
Marcin Chrząszcz[1]

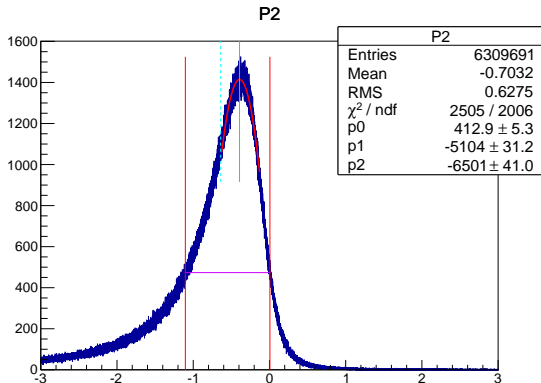[1] University of Zurich

University of Zurich[UZH]

May 19, 2015

Mystery of the P_2

- So you remember I was doing the error propagation from S_i to P_i.
- Works perfectly:

Mystery of the P_2

- ▶ here everything looks fine :)
- ▶ But there is something funny going with the super annoying bin.
- ▶ Clearly there the central value of the P_2 is not the central value from A_{fb} and F_l.

P2

P2	
Entries	6309691
Mean	-0.7032
RMS	0.6275
χ^2 / ndf	2505 / 2006
p0	412.9 ± 5.3
p1	-5104 ± 31.2
p2	-6501 ± 41.0

Mystery of the P_2

- ▶ Started debugging:
    - ▶ Cross check with Tom, the fit when parametrized in terms of P_2 give the central value on the cyan line...
    - ▶ Looks like we are loosing some information about the internal structure of the pdf.
    - ▶ Idea: We require for now that $Fl \in \langle 0, 1 \rangle$, how about throwing in also: $A_{fb} < \frac{3}{4}(1 - F_l)$

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