

# Acceptance issue

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- In data discrepancy up to 1 sigma in the highest and lowest bins when compared new and old acceptance (mostly  $F_I$ ).  
FIXME
- Performed a toy study:
  - Took SM MC, and apply the new highest odd acceptance from Christoph.
  - Divided into  $3fb^{-1}$  corresponding samples
  - Used 2  $GeV^2$  binning scenario.
  - Added two weights: new and old.
  - Recomputed observables for each toy using 2 acceptances.
  - Look into the differences.
  - Results in the next slide.



# Numbers Fit, expected deviations

0.1 – 0.98	0.0216008	0.010946	0.0404602	0.0262259	0.0233611	0.0391067	0.0120506
1.1 – 2.5	0.016072	0.0053112	0.0166444	0.0126303	0.0130115	0.015087	0.00553845
2.5 – 4	0.0124394	0.00424708	0.011096	0.00925205	0.00799686	0.00952774	0.00424132
4 – 6	0.008646	0.00312367	0.0079593	0.00727349	0.00522152	0.00651302	0.00311269
6 – 8	0.015737	0.00438532	0.0100089	0.0118984	0.00831223	0.009712	0.00446352
15 – 17	0.0088157	0.00366958	0.00542786	0.00523935	0.00441696	0.00577158	0.00269092
17 – 19	0.0271101	0.0181168	0.0237682	0.0251109	0.0172123	0.0175126	0.0105872



# Numbers MoM, expected deviations

0.1 – 0.98	.01113	0.0571538	0.484421	0.875222	0.750888	0.808388	0.110309
1.1 – 2.5	0.0233569	0.011525	0.0567316	0.0374716	0.0229218	0.0227525	0.00966214
2.5 – 4	0.0124508	0.00714531	0.0274325	0.0486626	0.0201143	0.027187	0.00653637
4 – 6	0.0125362	0.00510912	0.0490782	0.0778953	0.0117517	0.0121875	0.00381904
6 – 8	0.0694169	0.0362361	0.100802	0.026377	0.110168	0.077164	0.0304819
15 – 17	0.0547882	0.00874876	0.0129285	0.0199238	0.0047388	0.00663897	0.00431089
17 – 19	0.0365058	0.0909971	0.0113491	0.0181383	0.0414832	0.0863238	0.0135275



# Numbers I get on data

- $Q2 = 0.1 \ 0.98$  delta FI = -0.044327 Error: 0.0591652 Nsigma:  
-0.749208



# Background conclusions

To conclude:

- Preliminary.
- There are to many hints of something being wrong.
- I know some of you will say: "Statistically insignificant", but if you add them up you are looking at something that is starting to be significant.

