

S-wave problem?

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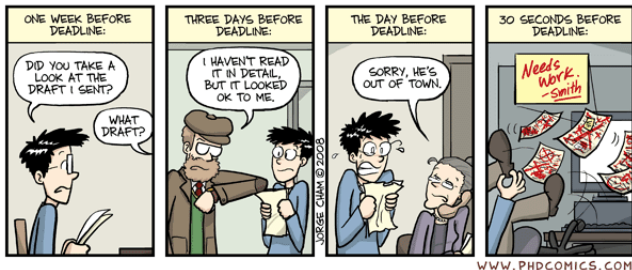
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Before we begin

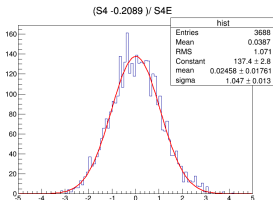


- I apologise for my lack of activities, was really busy with pushing out Phd.
- If I wouldn't push it before X-mas the next window to submit was in March.

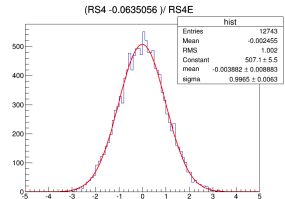
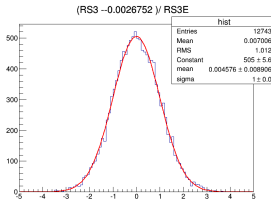
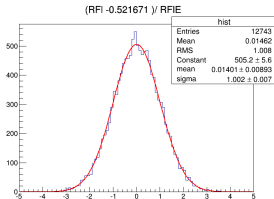


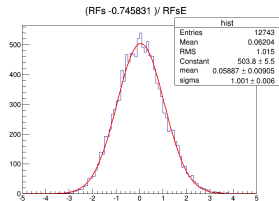
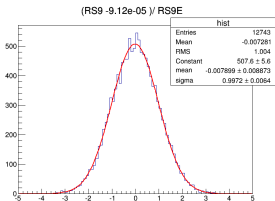
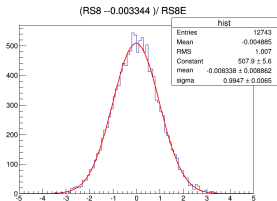
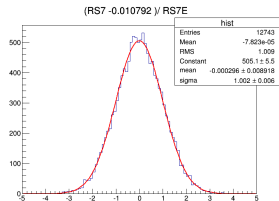
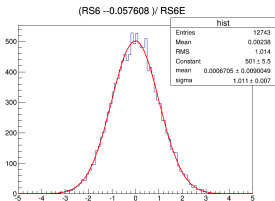
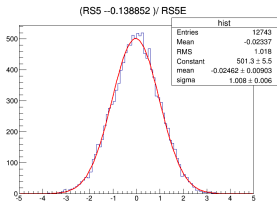
What is the problem?

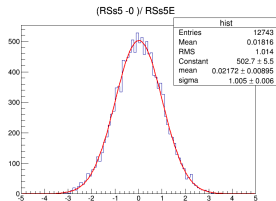
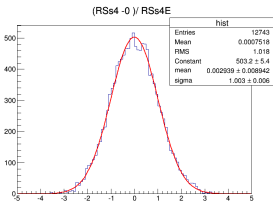
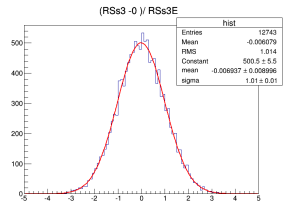
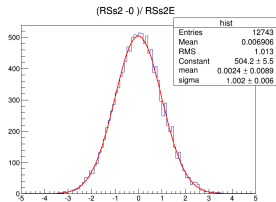
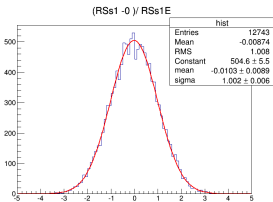
- Thomas just before X-mas reported problem that he sees biases in MoM.
- This is not what I remembered from my studies so debugged the problem/refresh my memories.
- Looking just at my pulls produced long long time ago every seemed fine.



- We define the set of function f_i and calcula their expected values with errors.
- Then we solve set of equations and get the paramters of interest.
- In the note the first stage gives our so called Raw moments.







- MoM works perfectly. Both mean and error is ok!
- Now the trick is to propagate the error.
- Thomas used just the covariance matrix! ← not applicable here.
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- From any statistics book $\frac{1}{x}$ shouldn't cov matrix but use MC techniques.
- Don't time to show here it now but it's simple.



- I started doing many other stuff:
 - Systematics for RECO12/14 → PROBLEM
 - Statistics for MoM → generating toys
 - S-wave → for MoM we will use BW phase shift.
 - All will be finished by the weekend. Fuc... QCD exam!

