

Measurements of the CKM matrix elements $|V_{tb}|$, $|V_{ts}|$ and $|V_{td}|$

News from systematics side and MC samples processing

CMS Naples Meeting

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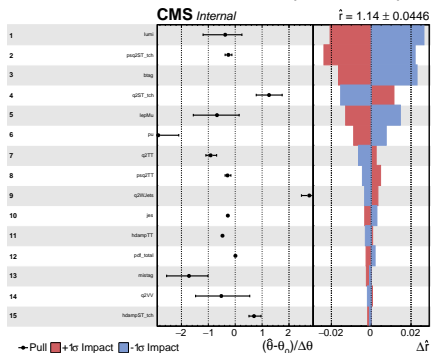
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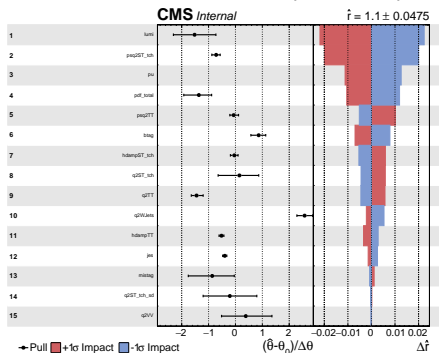
Fit results and systematics impacts

The previous version of the fit had a problem with the hdamp and psq2 that was due to a different selection, now solved.

Fit with hdamp and psq2 muon
Best fit r : 1.14 ± 0.04 (68% CL)



Fit with hdamp and psq2 electron
Best fit r : 1.10 ± 0.05 (68% CL)



Better but still incomplete

Incoming!

- Inclusion of the Jet Energy Resolution corrections
- Fixing and inclusion of the electron scale factor in the combined fit (still a bit unstable)
- Inclusion of the new MC samples → see next slides

To do!

- Attempt to extract the measurements of $|V_{ts}|$ and $|V_{td}|$ as soon the fit setup is more stable and clearly understood

New MC samples: current situation

Done!

- New MC samples for single top events with a $|V_{tq}|^2$ vertex in production and decay now available
- New nTuples and Trees already processed and available

To do!

- Dedicated study of the samples of the events with the presence of a $|V_{tq}|^2$ vertex
- Application of an additional scale factor, if needed, to the non standard decays in the $t\bar{t}$ events