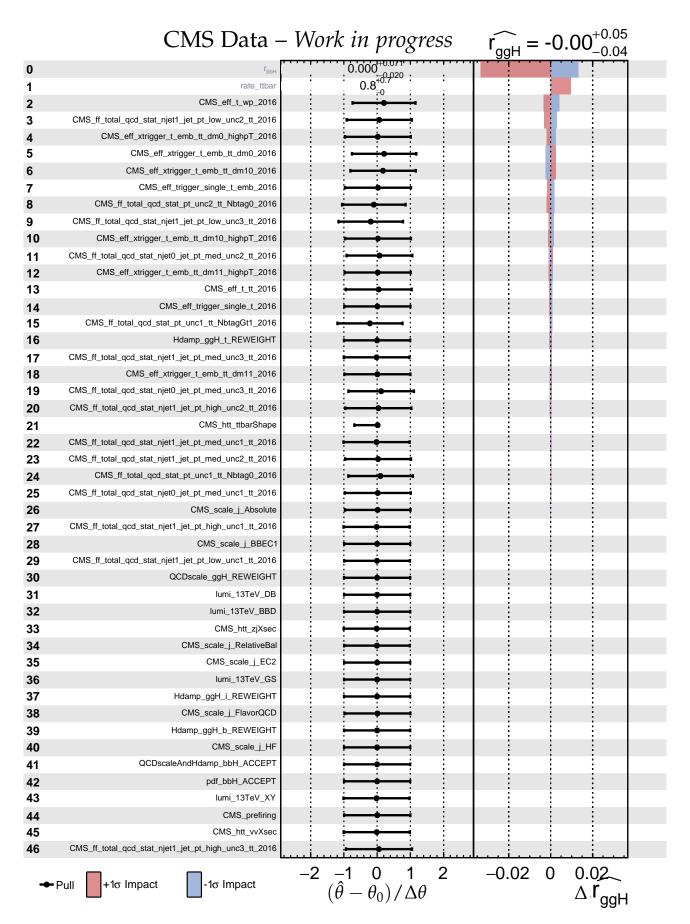
## Annexe X Ajustement des paramètres de nuisance – H ightarrow au au

Les paramètres de nuisance introduits au chapitre 4 sont ajustés par COMBINE, l'outil de combination statistique utilisé par la collaboration CMS basé sur ROOSTATS [1].

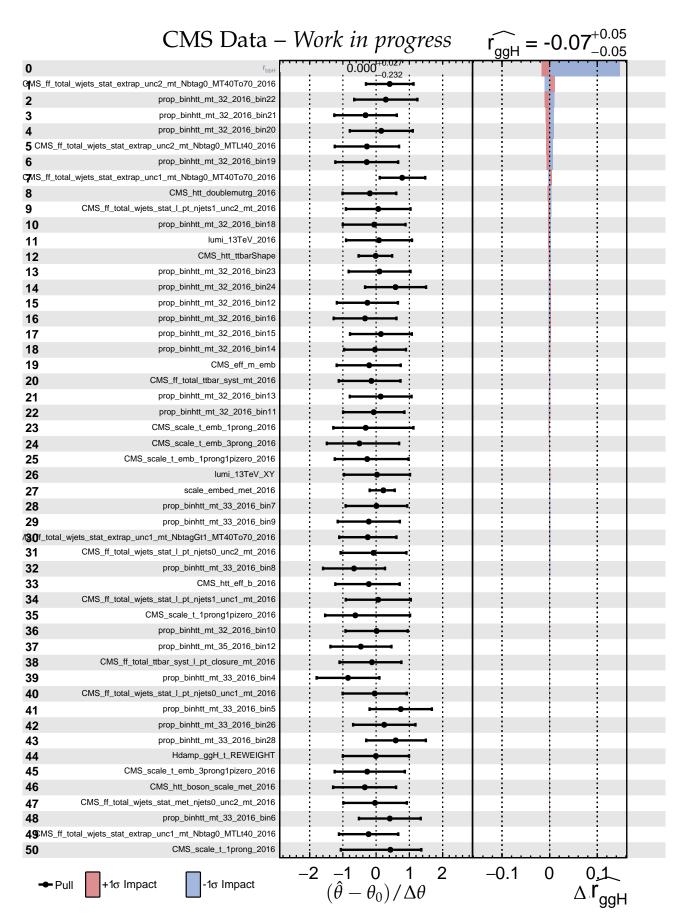
Dans cette annexe, les valeurs prises par ces paramètres après ajustement pour l'obtention des limites d'exclusion indépendantes du modèle  $\hat{\theta}$  (pulls) ainsi que l'incertitude sur cette valeur sont données en termes de nombre de déviations standard  $\Delta\theta$  par rapport à la valeur nominale  $\theta_0$ . Leur effet sur le paramètre d'intérêt, en l'occurrence le modificateur d'intensité du signal  $\mu=r_{ggH}$ , est donné par les bandes rouges et bleues. Elles correspondent respectivement aux effets corrélé et anti-corrélé du paramètre de nuisance sur  $\mu$  ( $\pm 1\sigma$  impact).

## Références

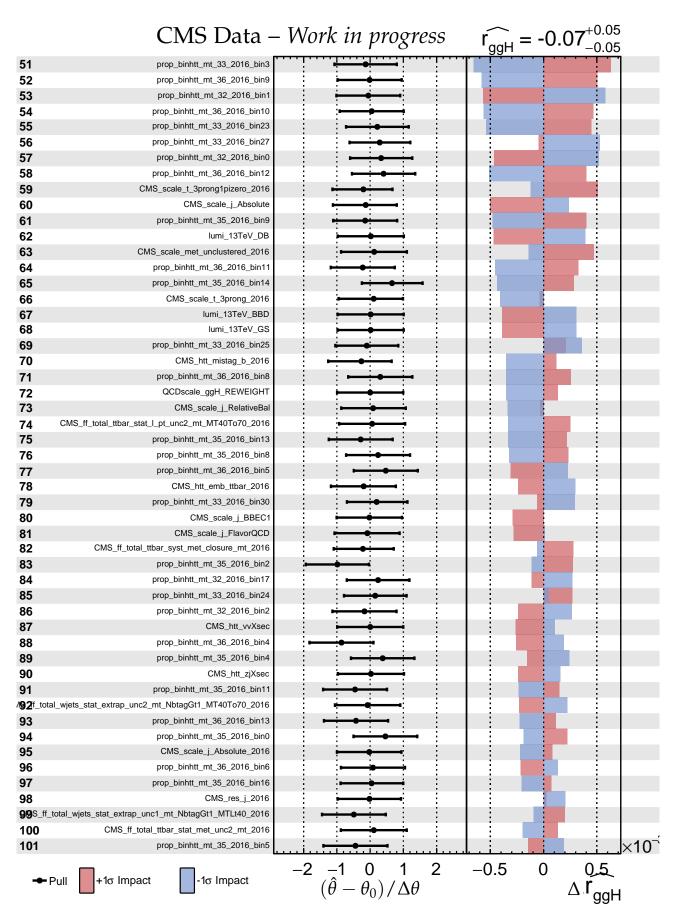
[1] L. Moneta & coll. « The RooStats Project ». 13<sup>th</sup> International Workshop on Advanced Computing and Analysis Techniques in Physics Research (ACAT2010). 2010. URL: http://pos.sissa.it/archive/conferences/093/057/ACAT2010\_057.pdf.



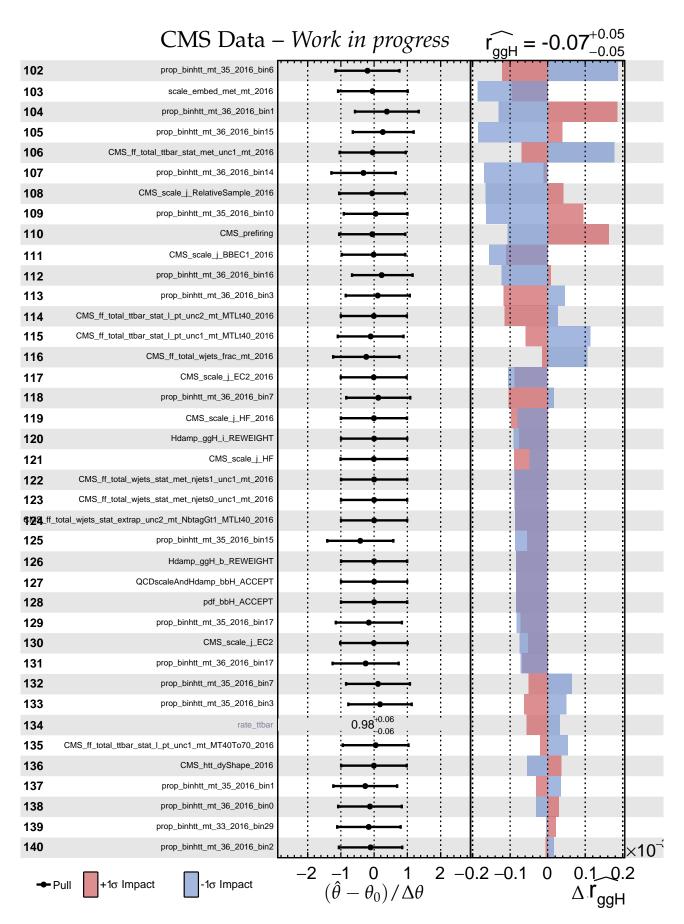
Année 2016, canal  $\tau_h \tau_h$ , page 1/1



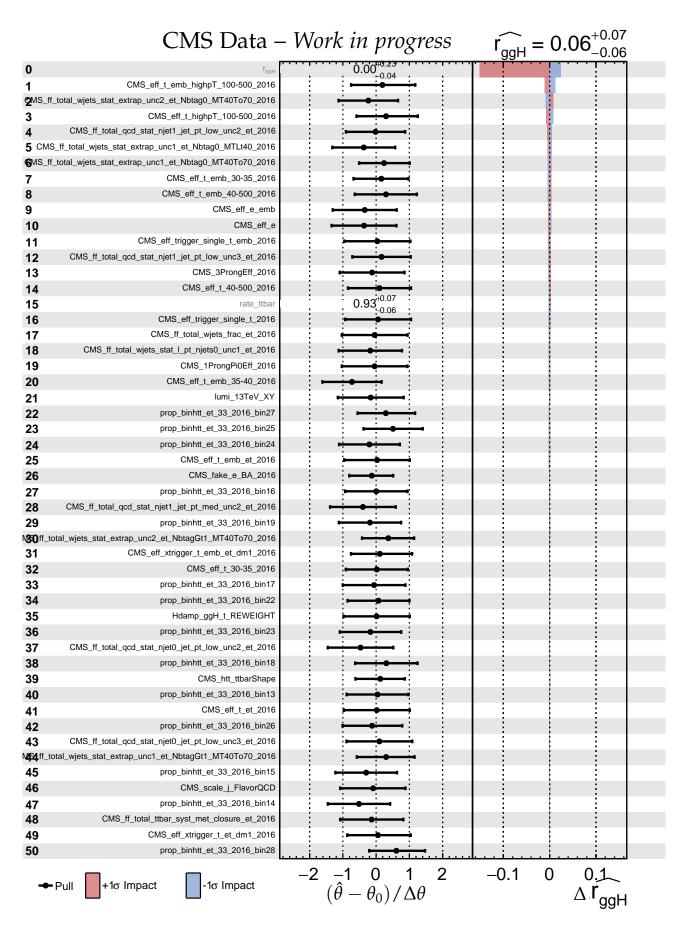
Année 2016, canal  $\mu \tau_h$ , page 1/3



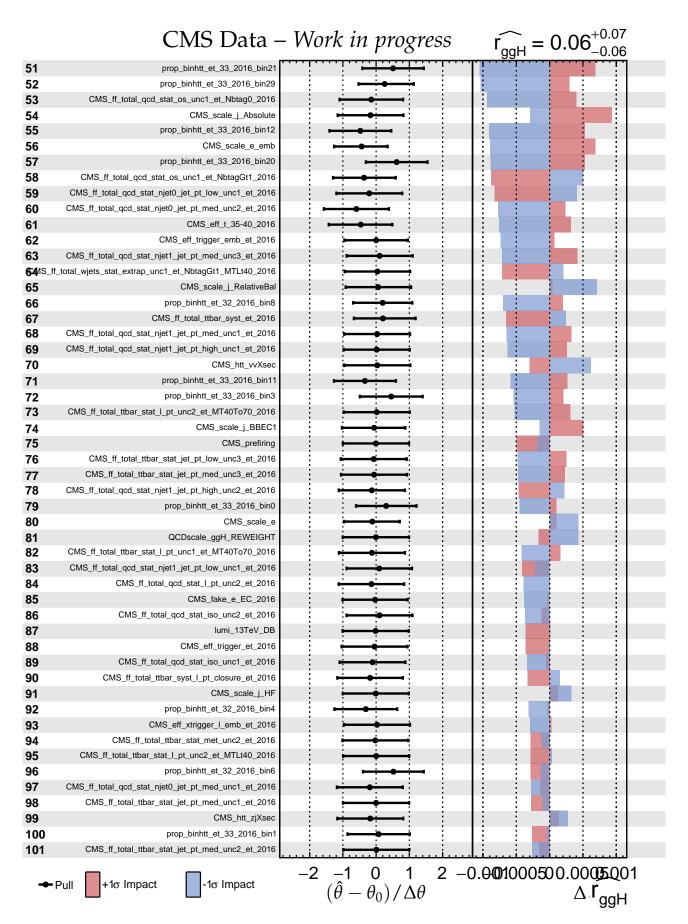
Année 2016, canal  $\mu \tau_h$ , page 2/3



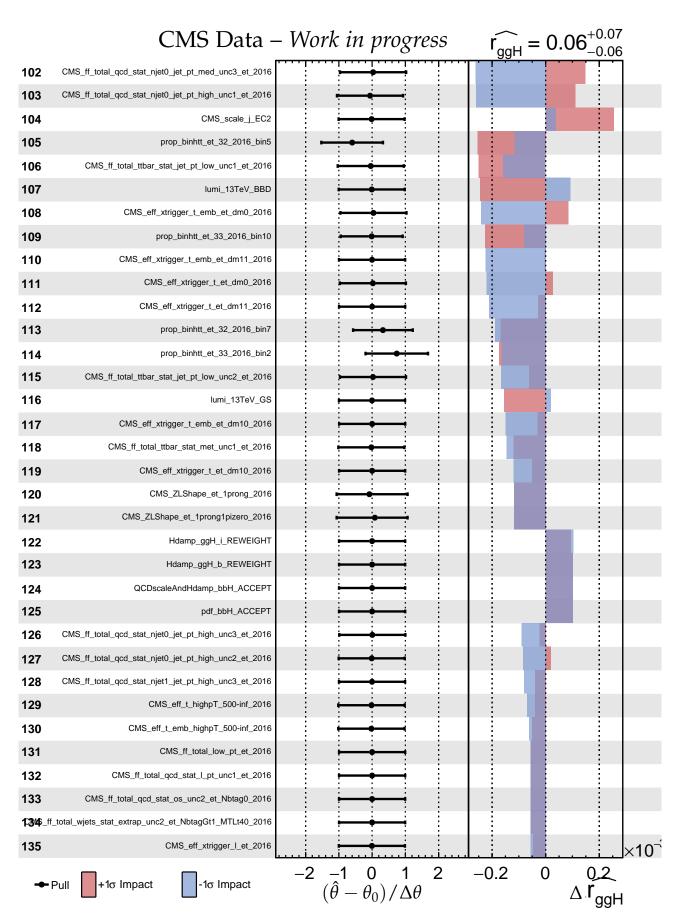
Année 2016, canal  $\mu \tau_h$ , page 3/3



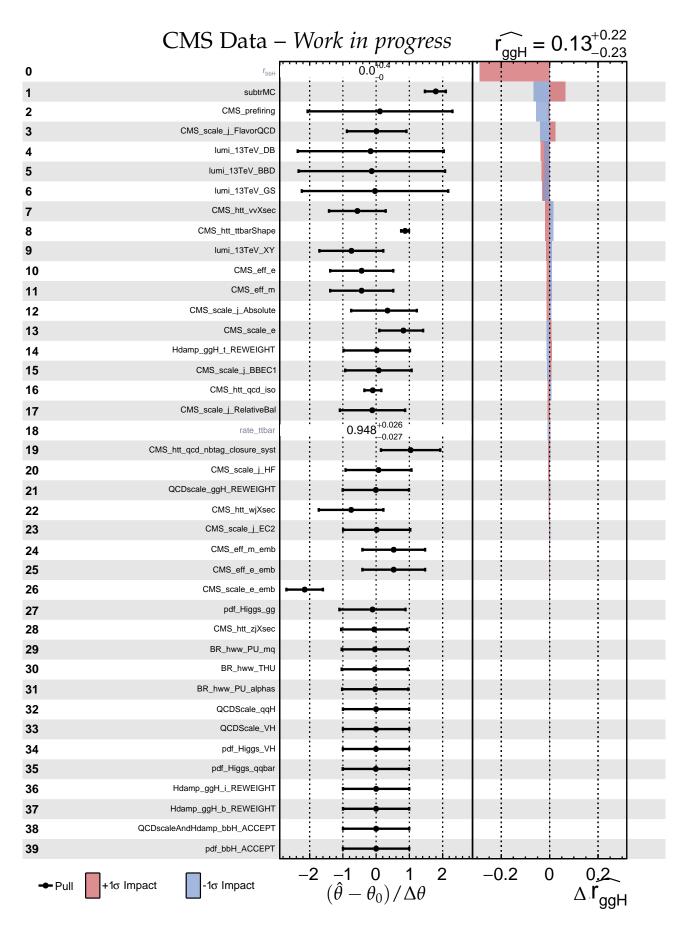
Année 2016, canal  $e\tau_h$ , page 1/3



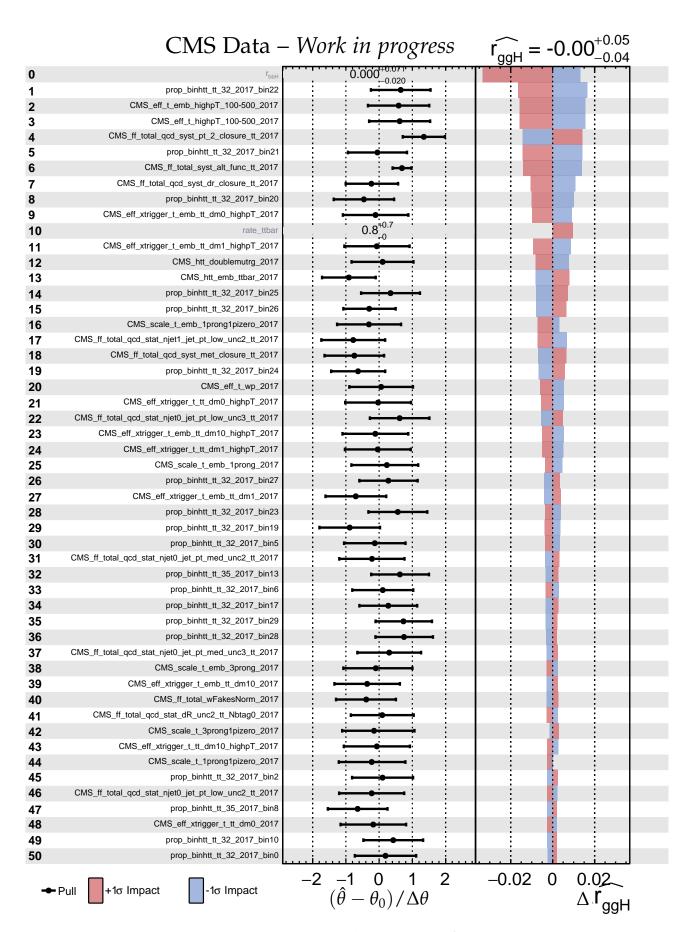
Année 2016, canal  $e\tau_h$ , page 2/3



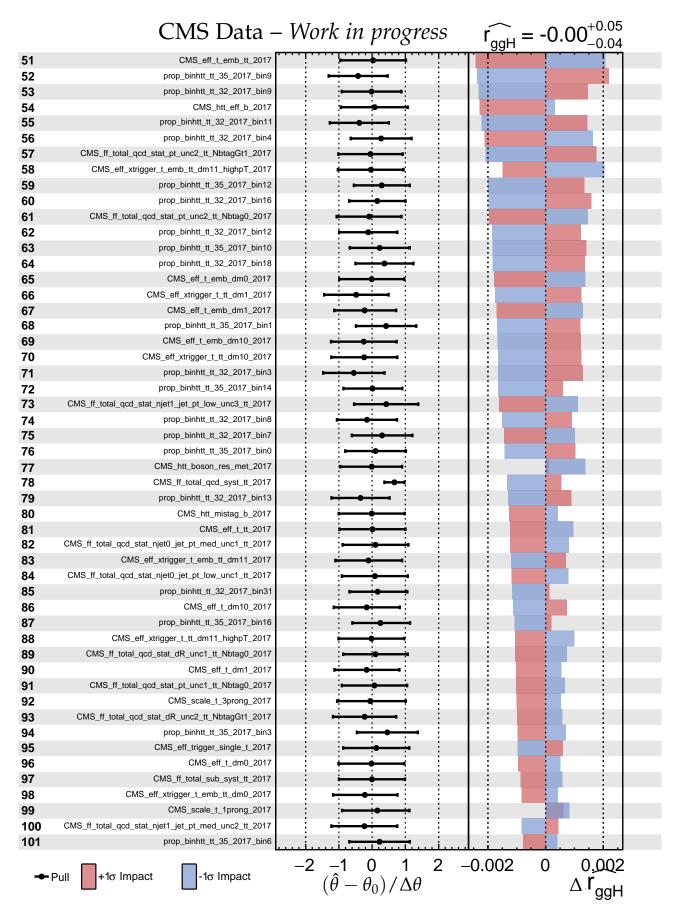
Année 2016, canal  $e\tau_h$ , page 3/3



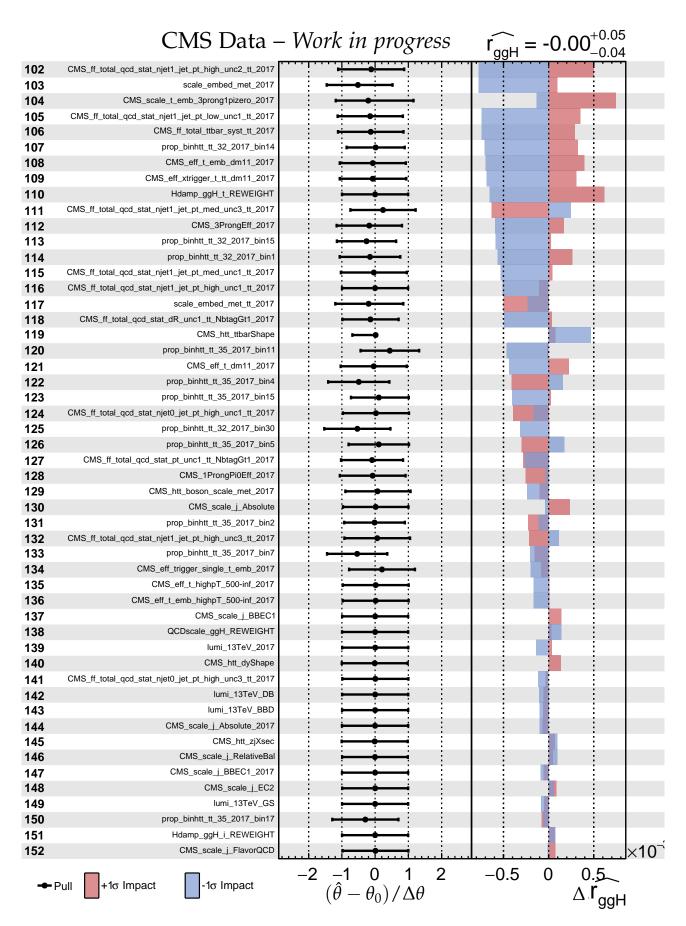
Année 2016, canal eµ, page 1/1



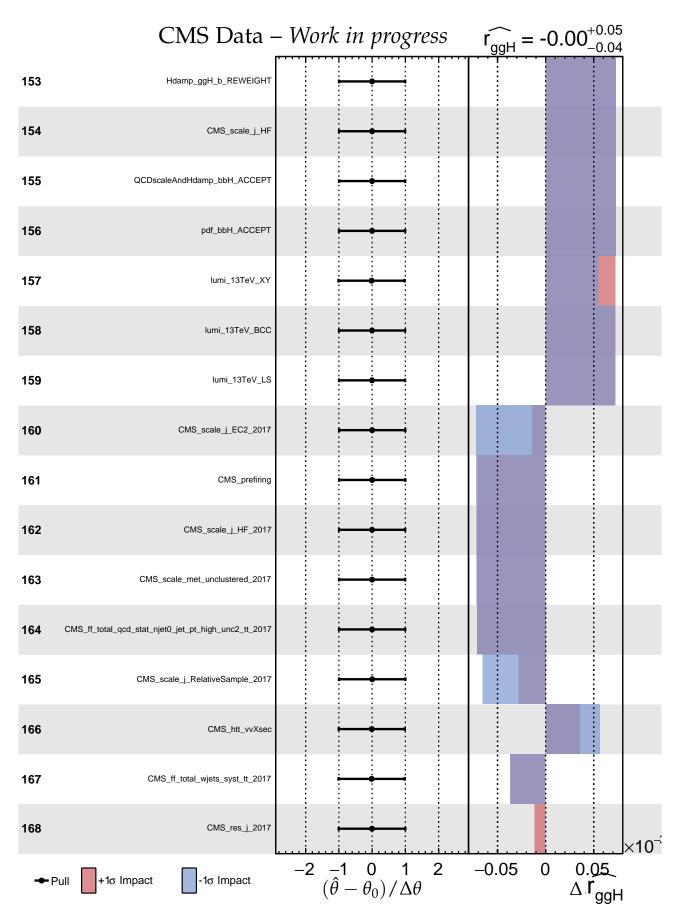
Année 2017, canal  $\tau_h \tau_h$ , page 1/4



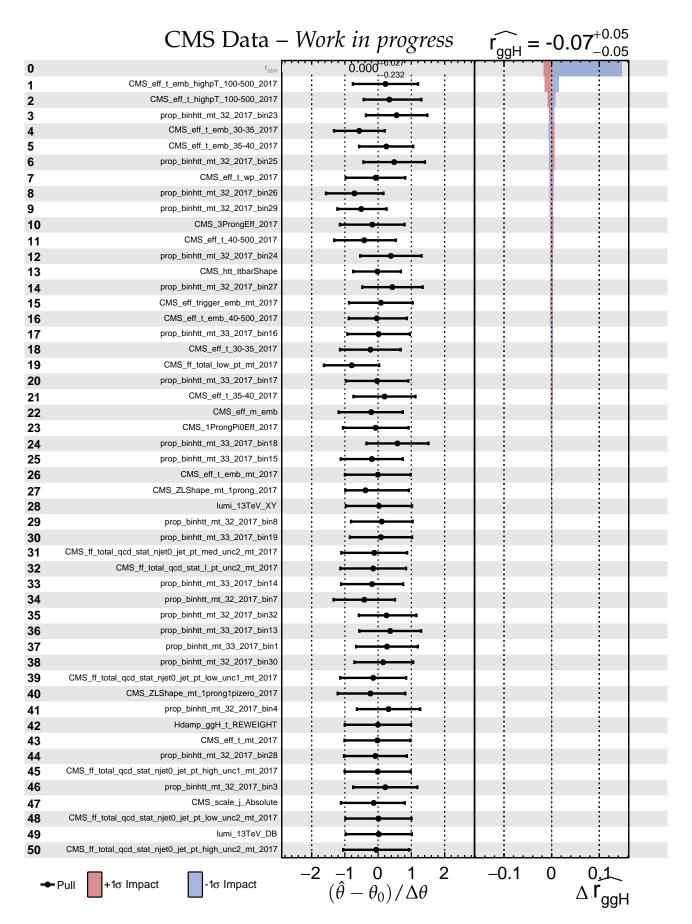
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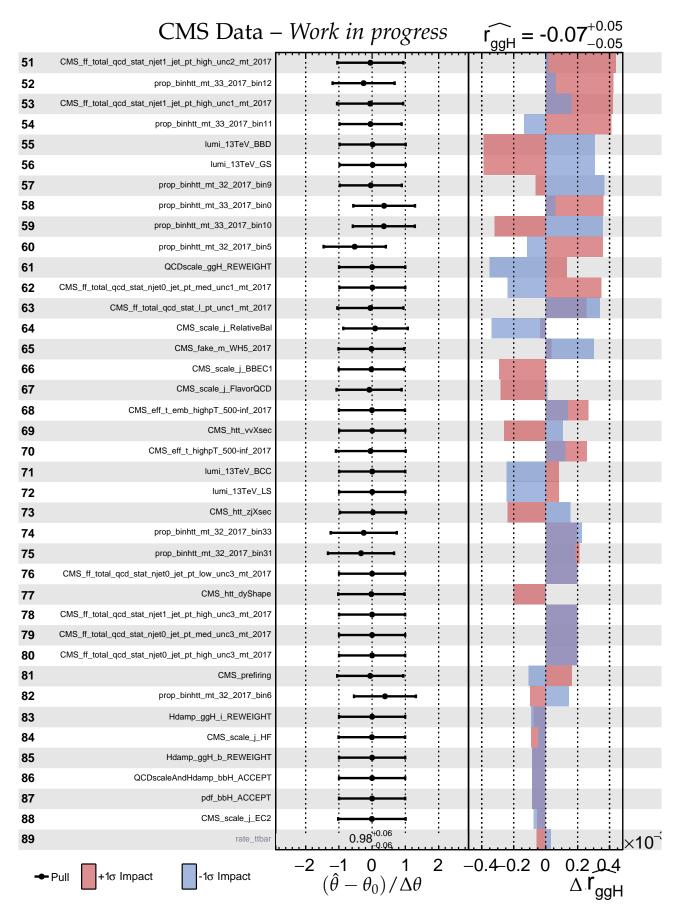
Année 2017, canal  $\tau_h \tau_h$ , page 3/4



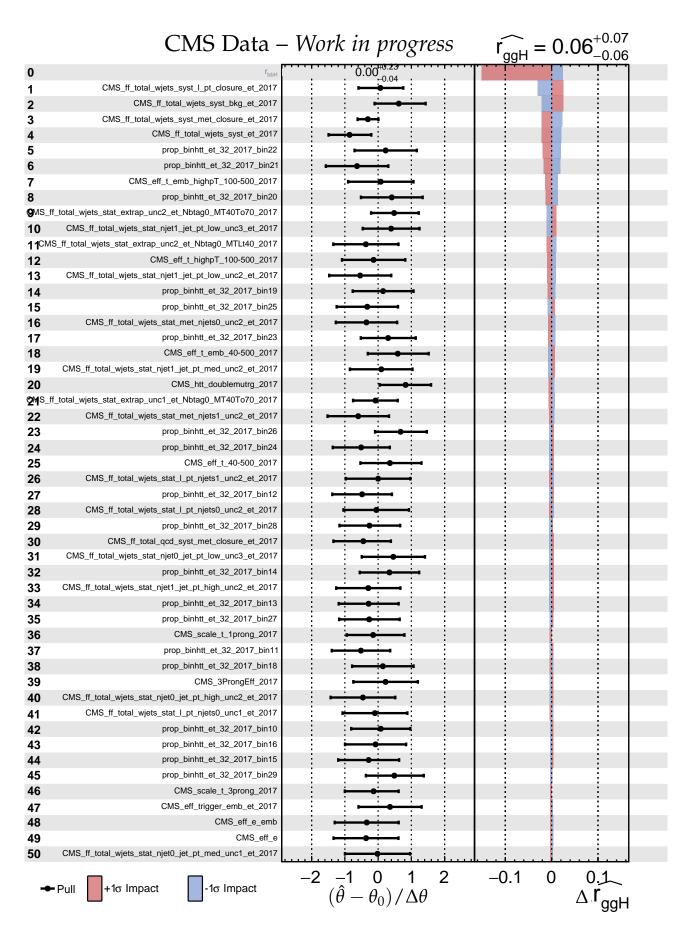
Année 2017, canal  $\tau_h \tau_h$ , page 4/4



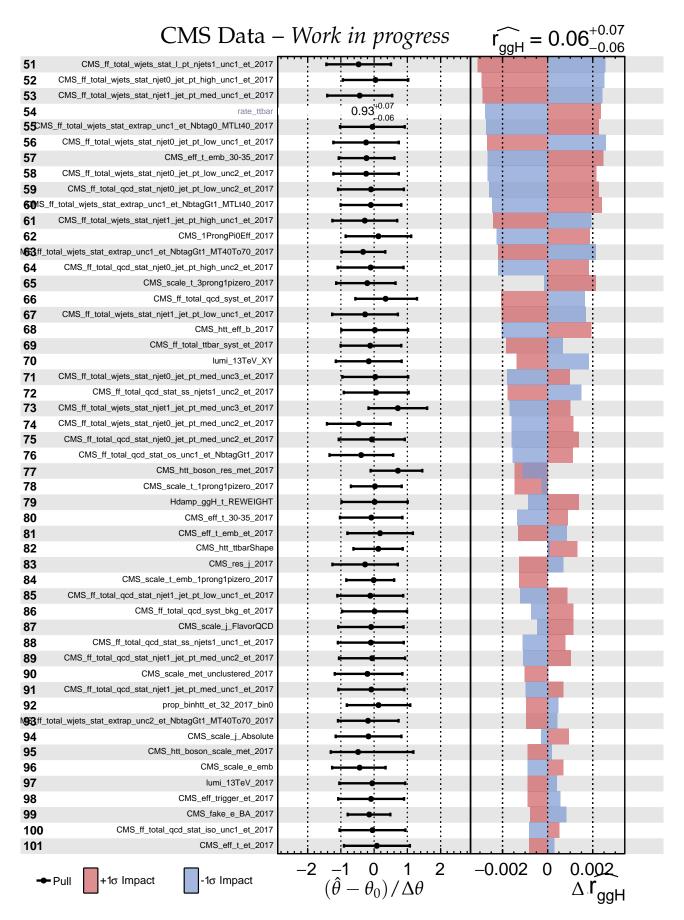
Année 2017, canal  $\mu \tau_h$ , page 1/2



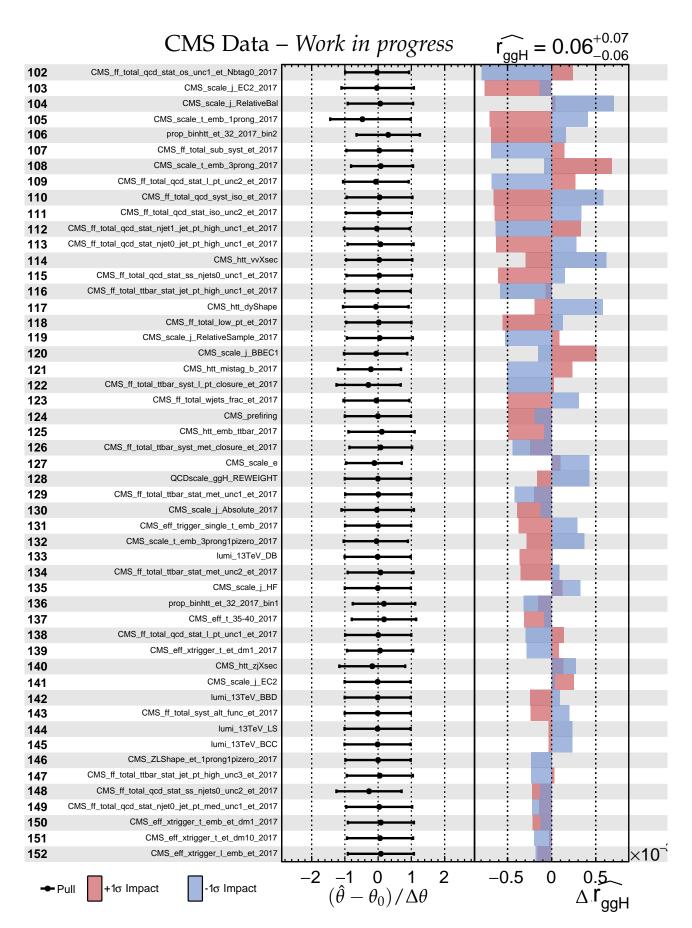
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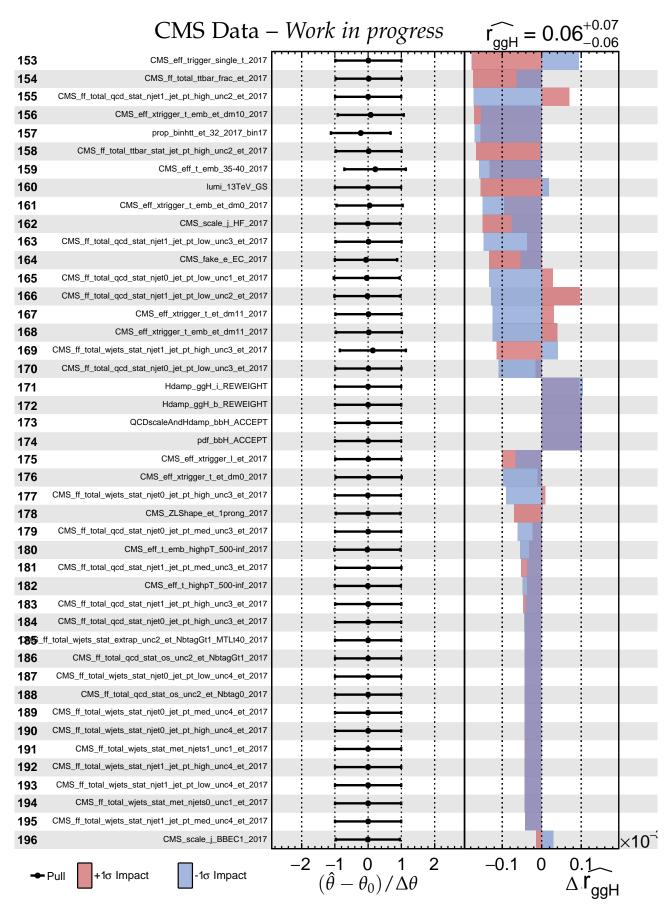
Année 2017, canal  $e\tau_h$ , page 1/4



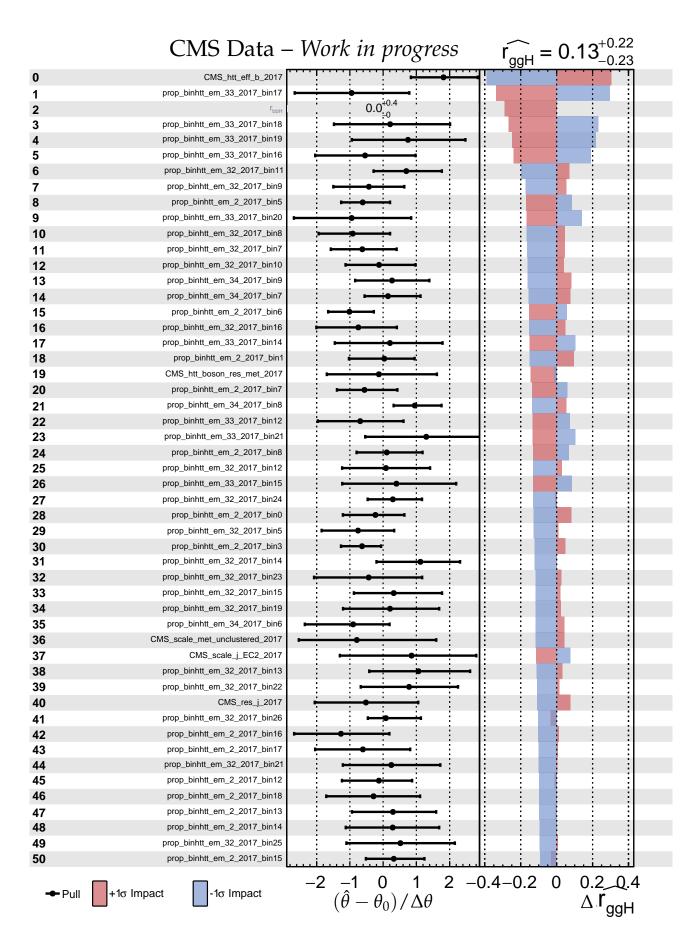
Année 2017, canal  $e\tau_h$ , page 2/4



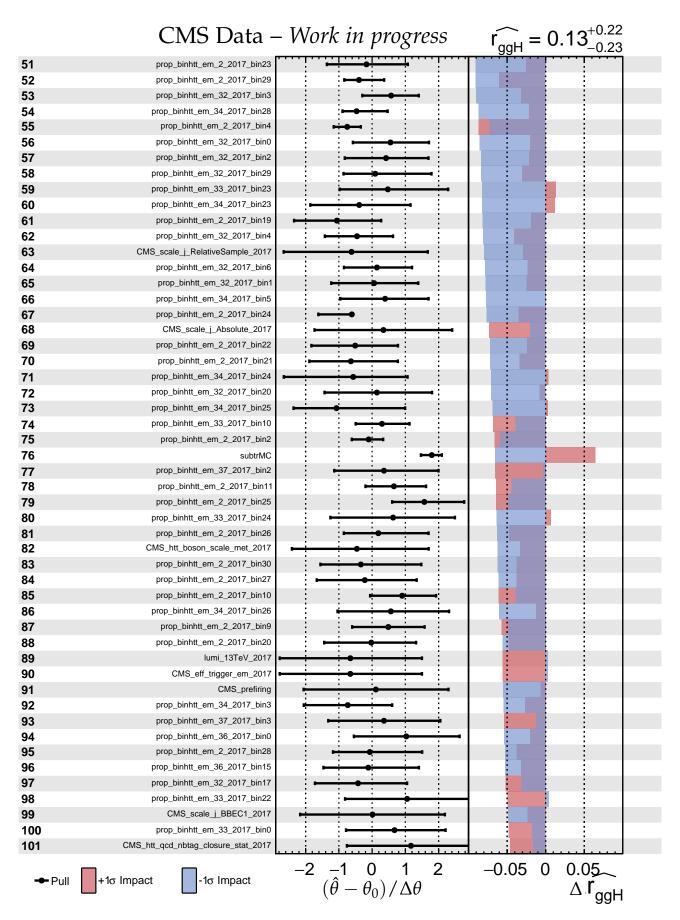
Année 2017, canal  $e\tau_h$ , page 3/4



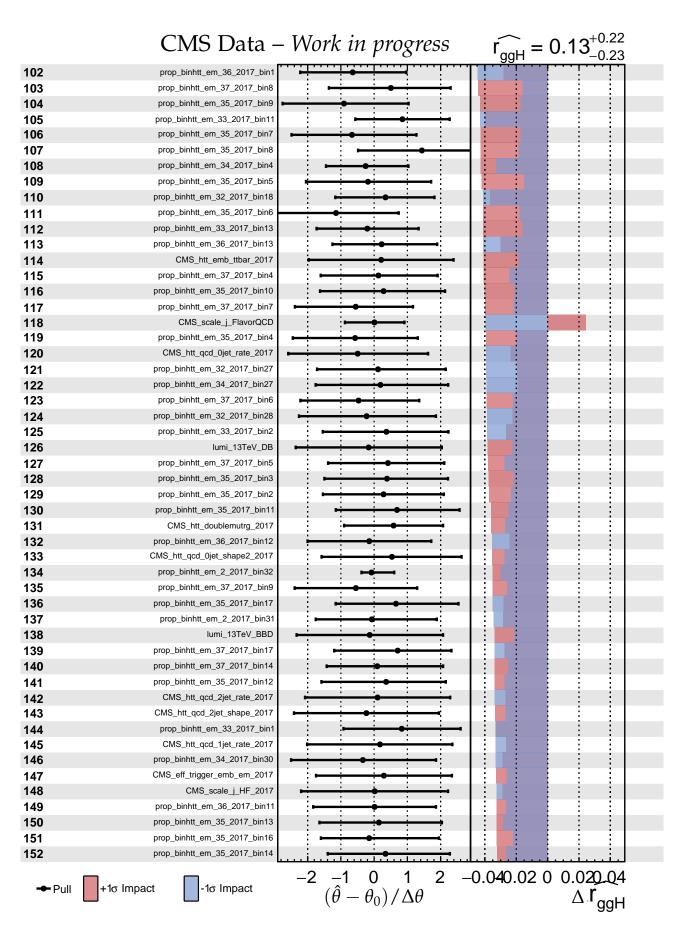
Année 2017, canal  $e\tau_h$ , page 4/4



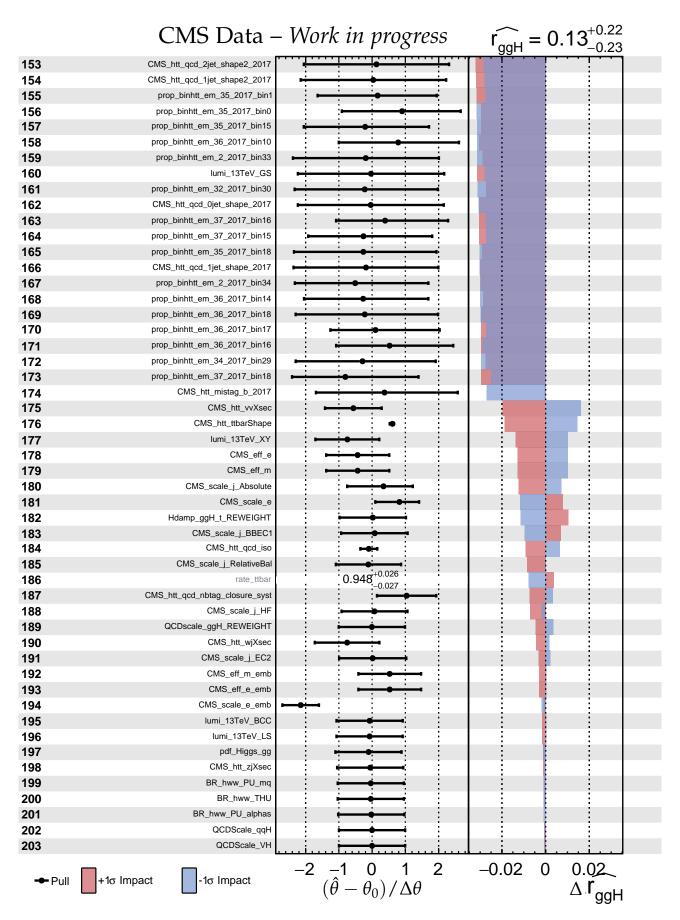
Année 2017, canal  $e\mu$ , page 1/5



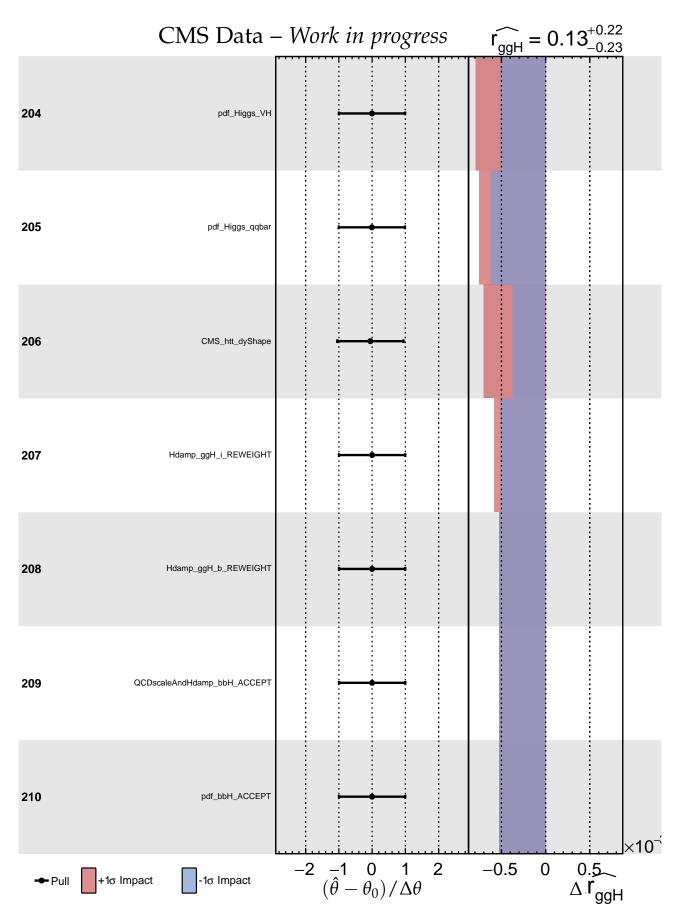
Année 2017, canal  $e\mu$ , page 2/5



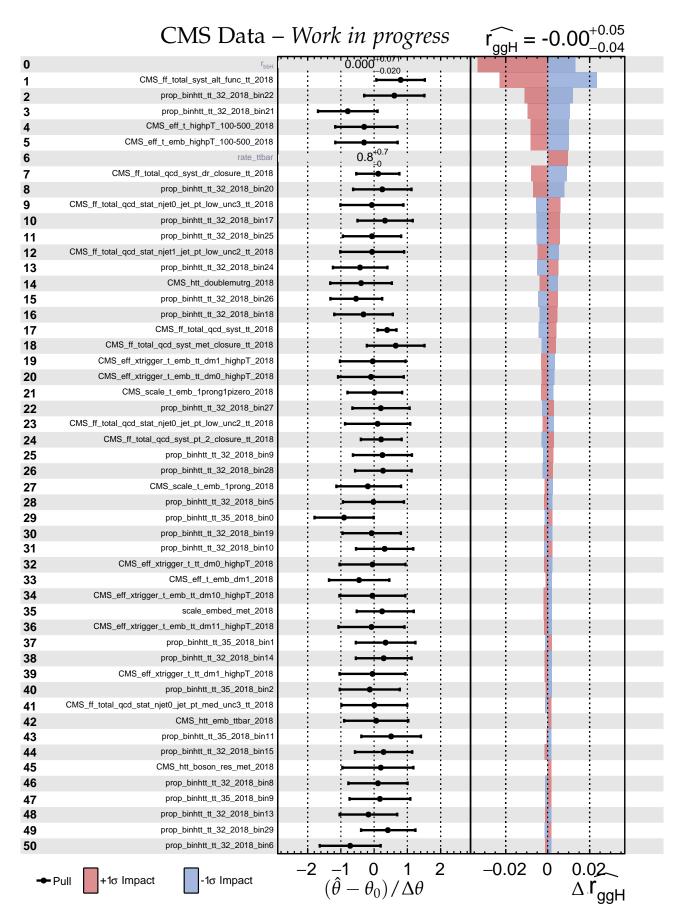
Année 2017, canal  $e\mu$ , page 3/5



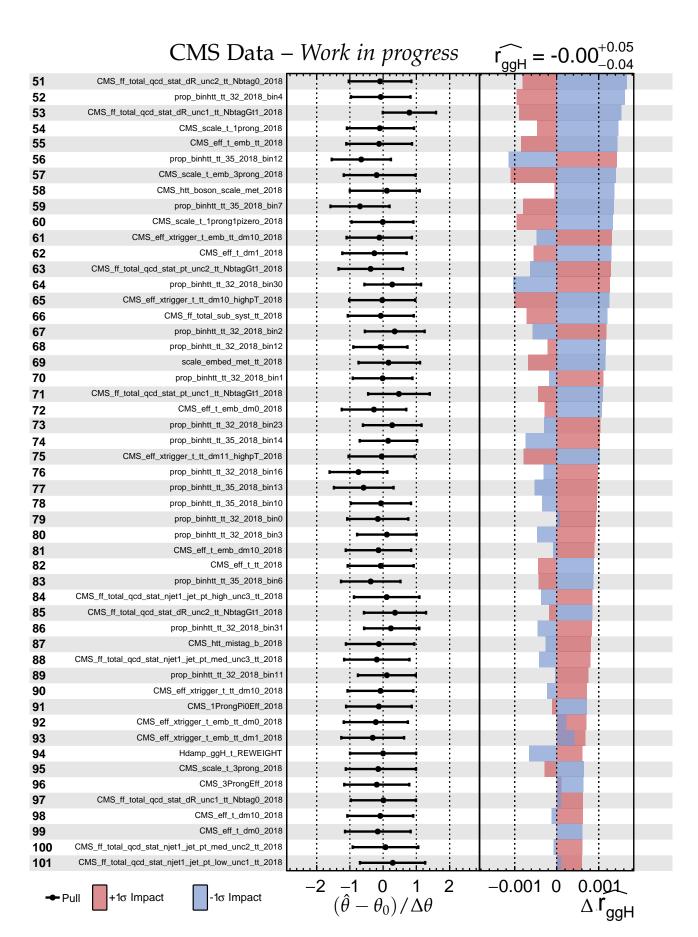
Année 2017, canal  $e\mu$ , page 4/5



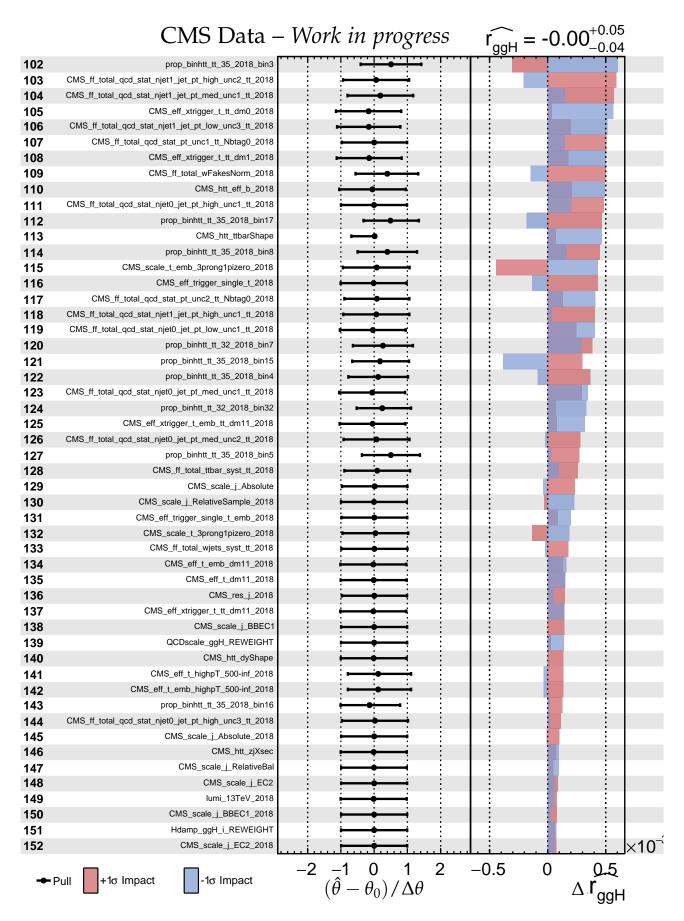
Année 2017, canal eµ, page 5/5



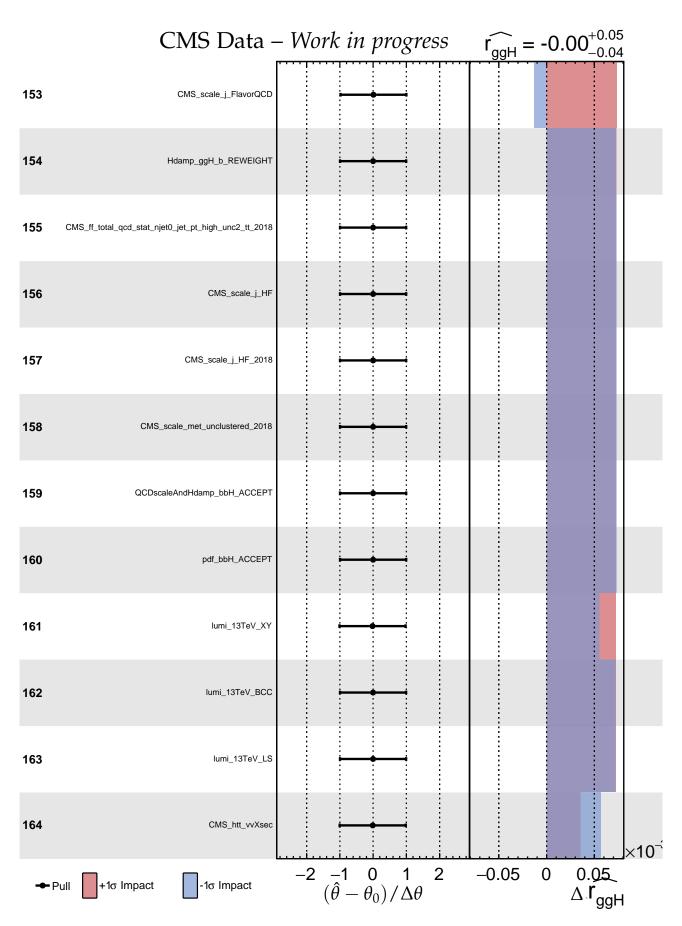
Année 2018, canal  $\tau_h \tau_h$ , page 1/4



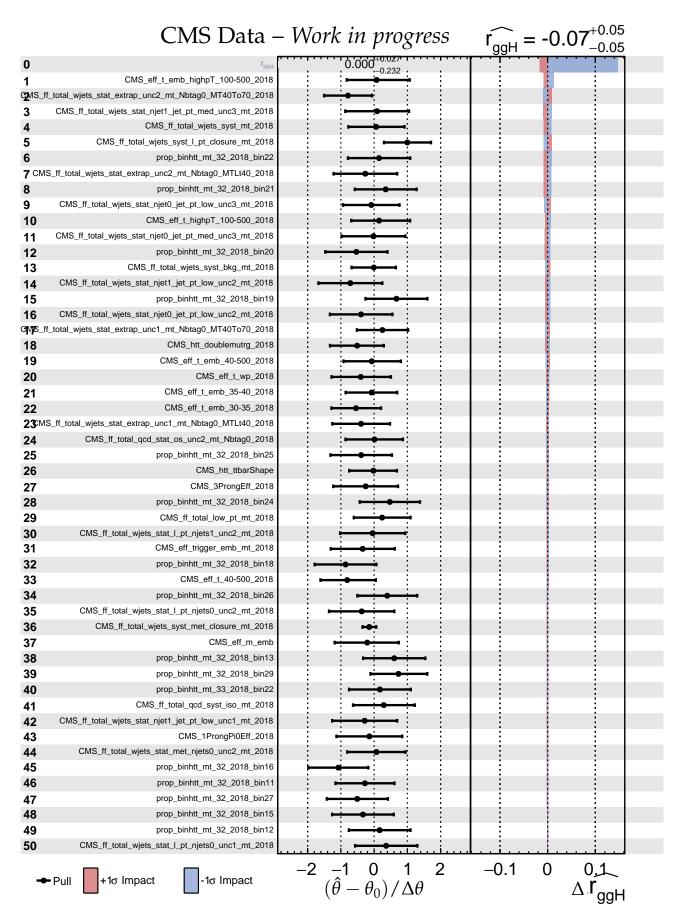
Année 2018, canal  $\tau_h \tau_h$ , page 2/4



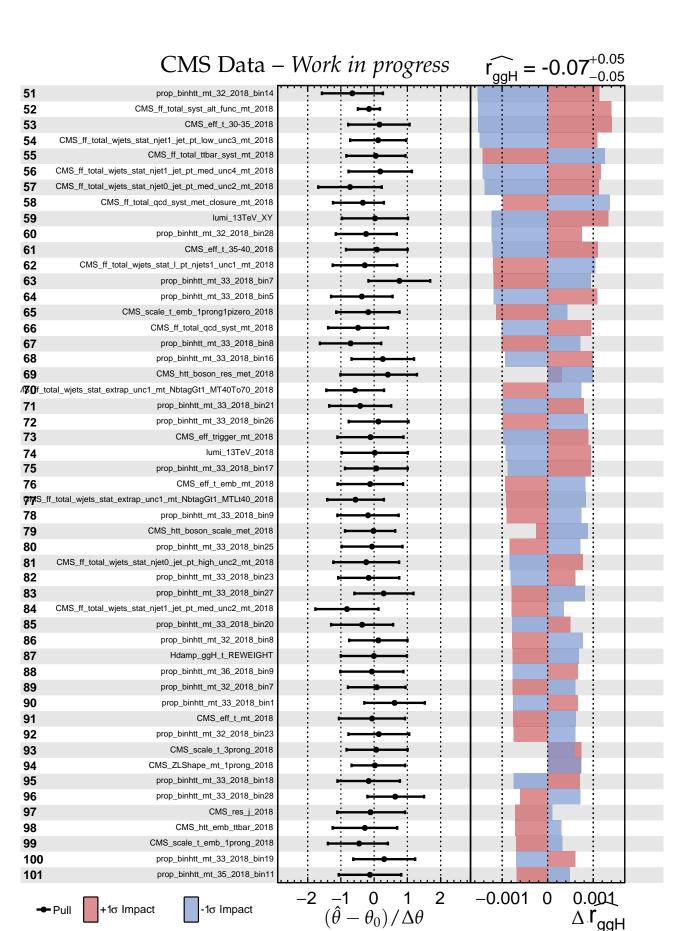
Année 2018, canal  $\tau_h \tau_h$ , page 3/4



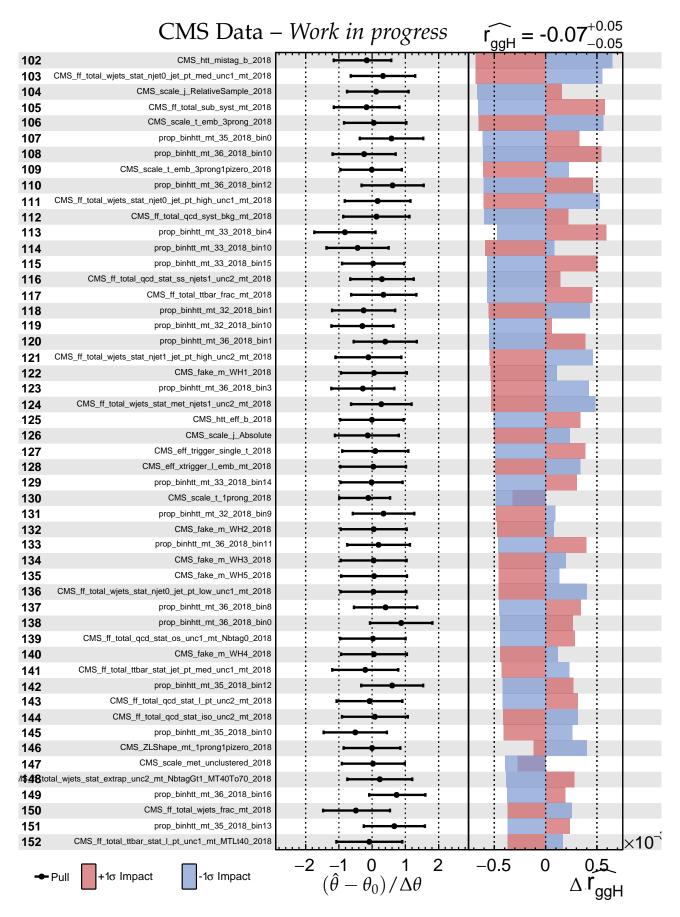
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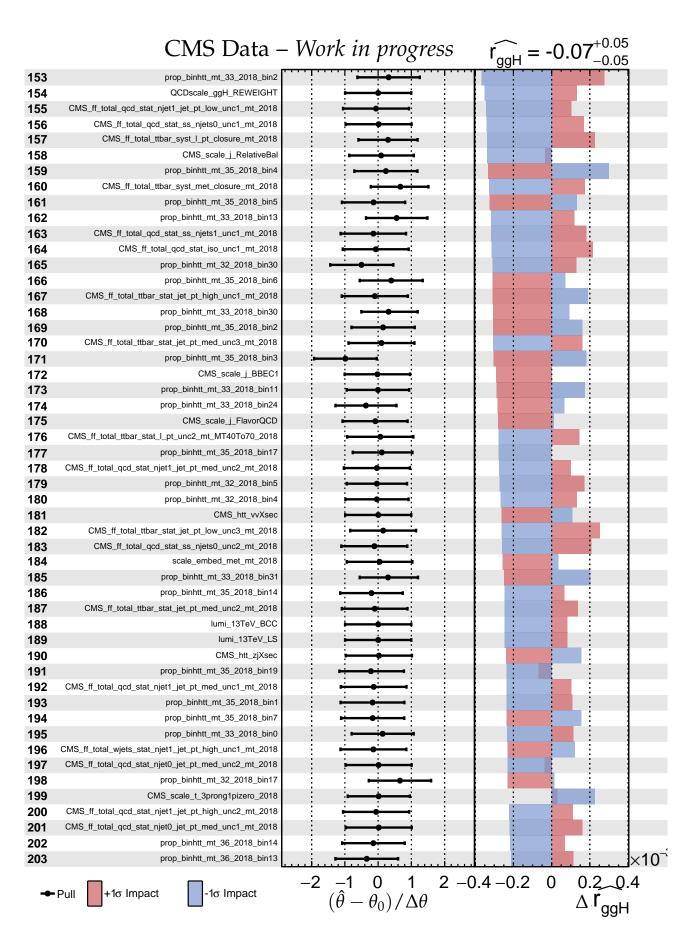
Année 2018, canal  $\mu \tau_h$ , page 1/6



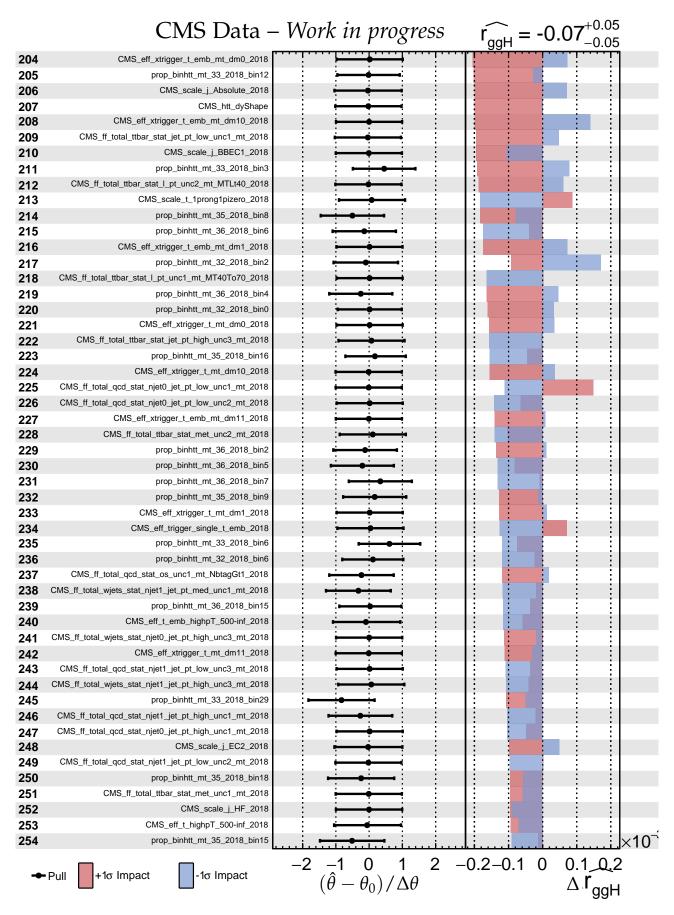
Année 2018, canal  $\mu \tau_h$ , page 2/6



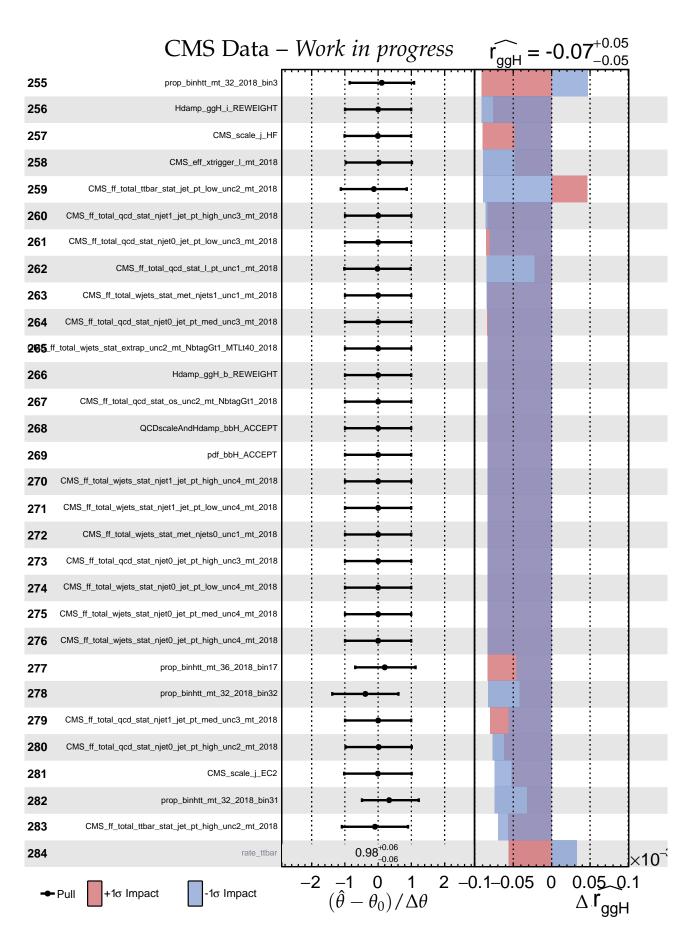
Année 2018, canal  $\mu \tau_h$ , page 3/6



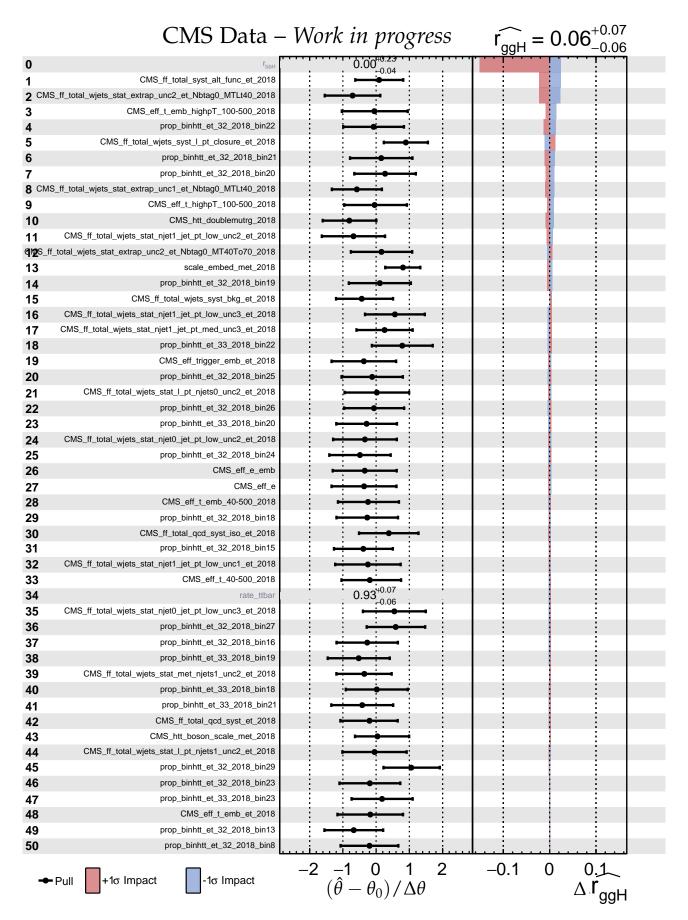
Année 2018, canal  $\mu \tau_h$ , page 4/6



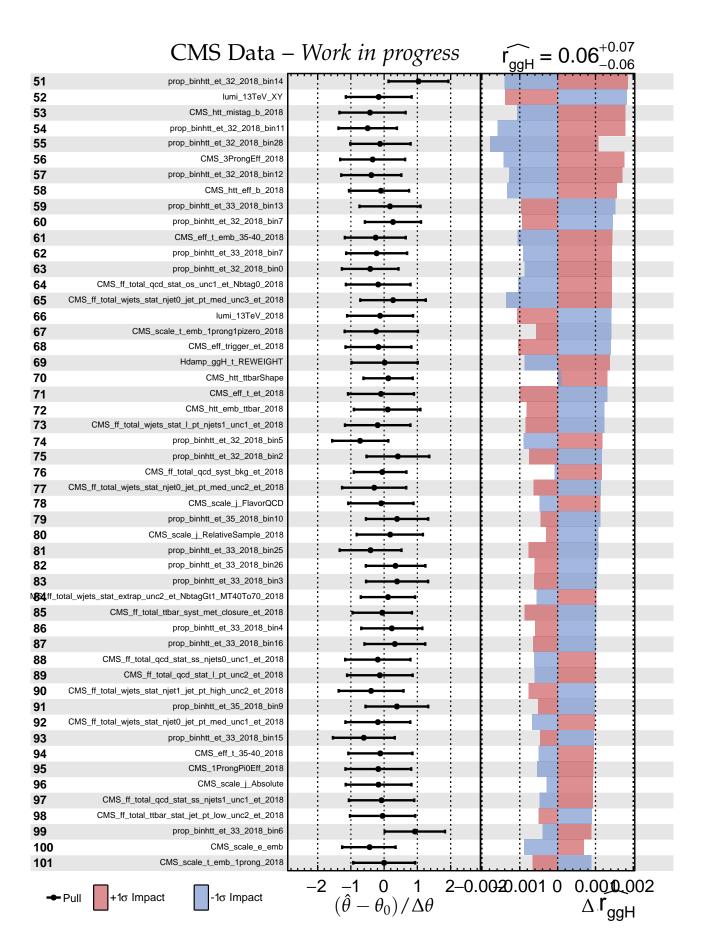
Année 2018, canal  $\mu \tau_h$ , page 5/6



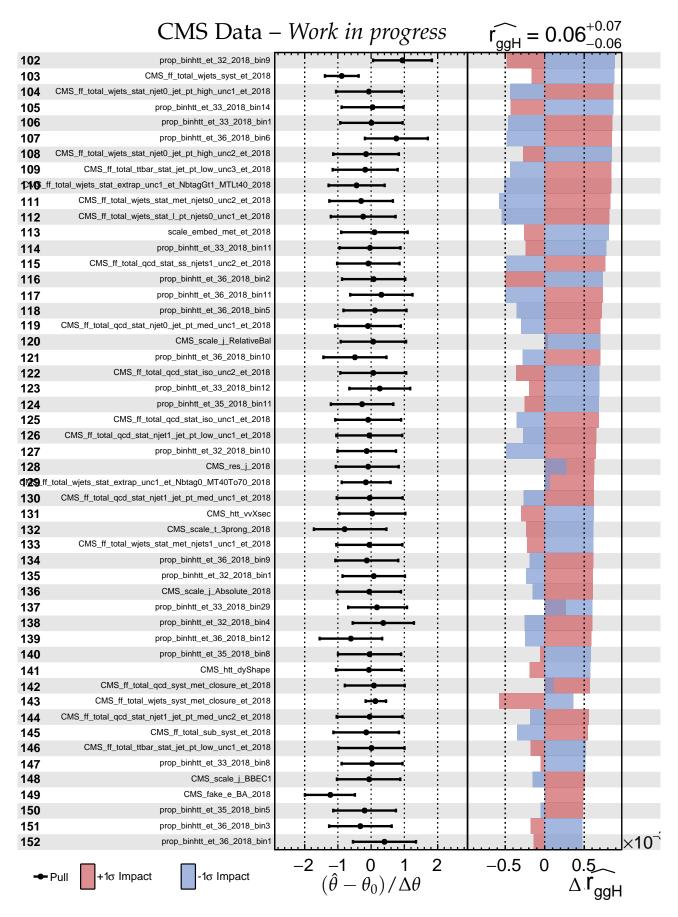
Année 2018, canal  $\mu \tau_h$ , page 6/6



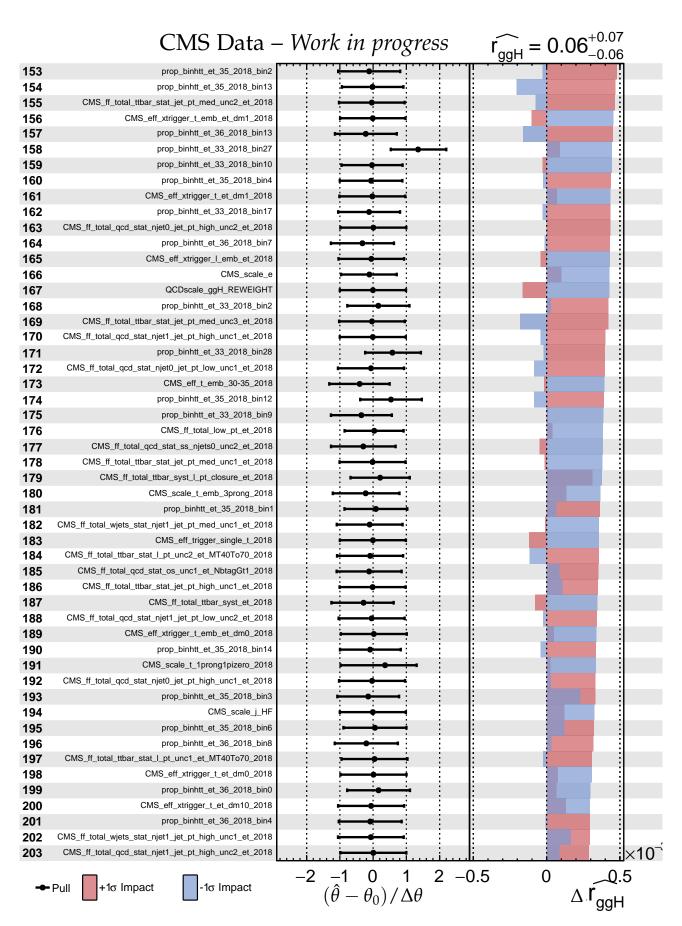
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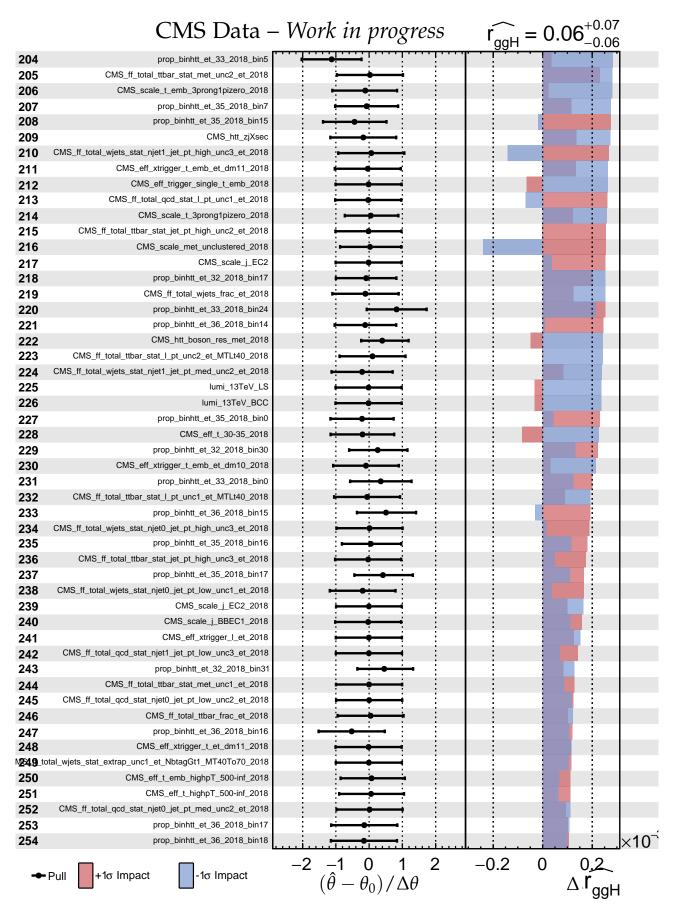
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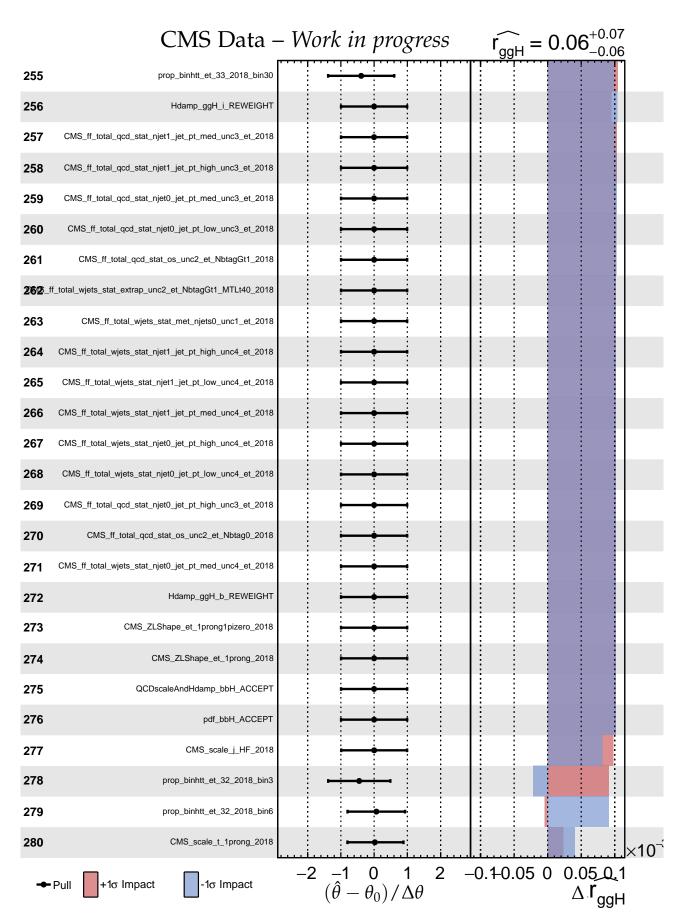
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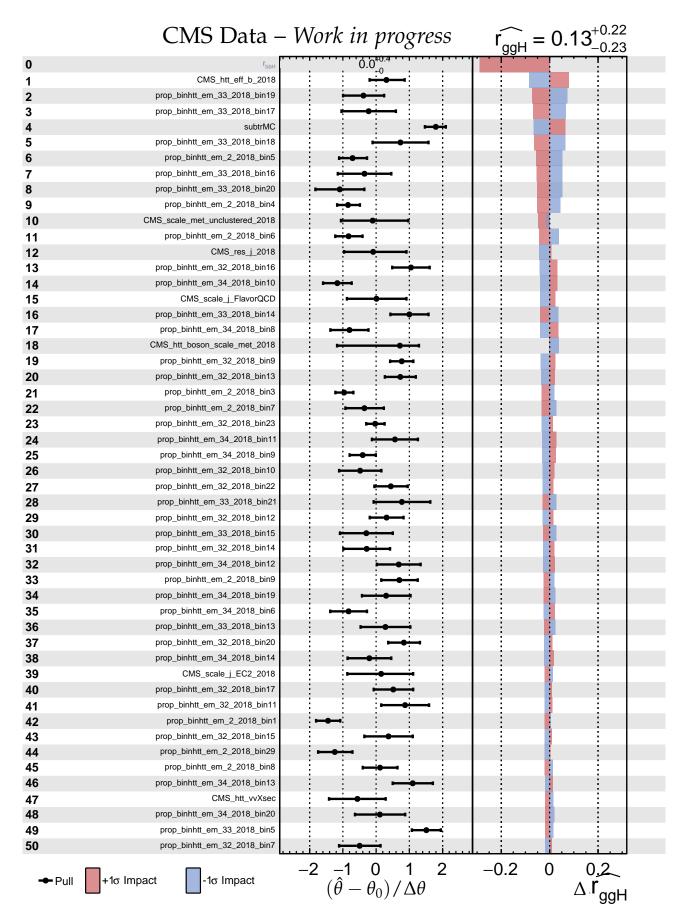
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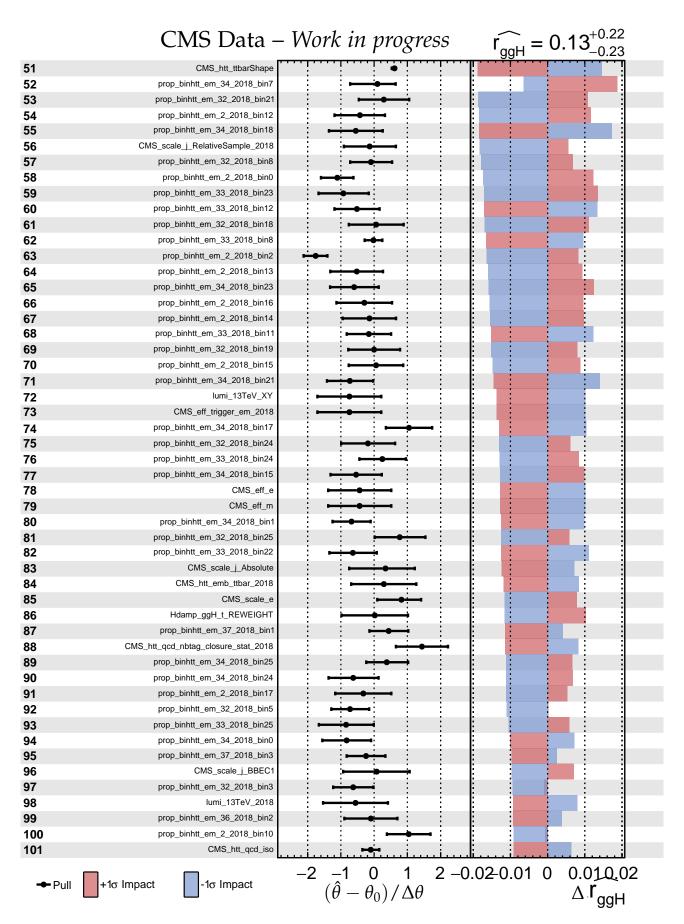
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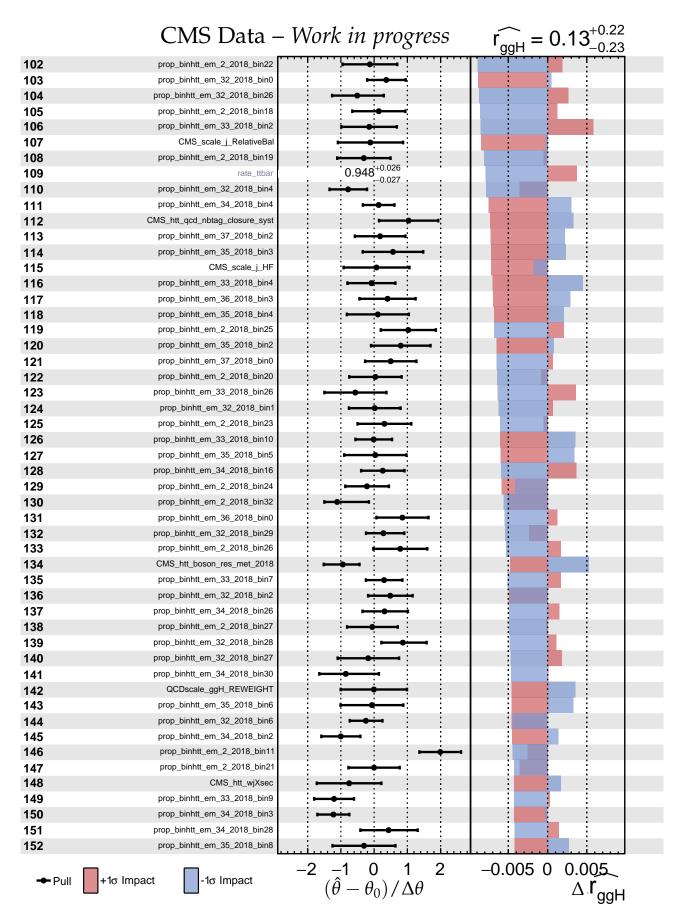
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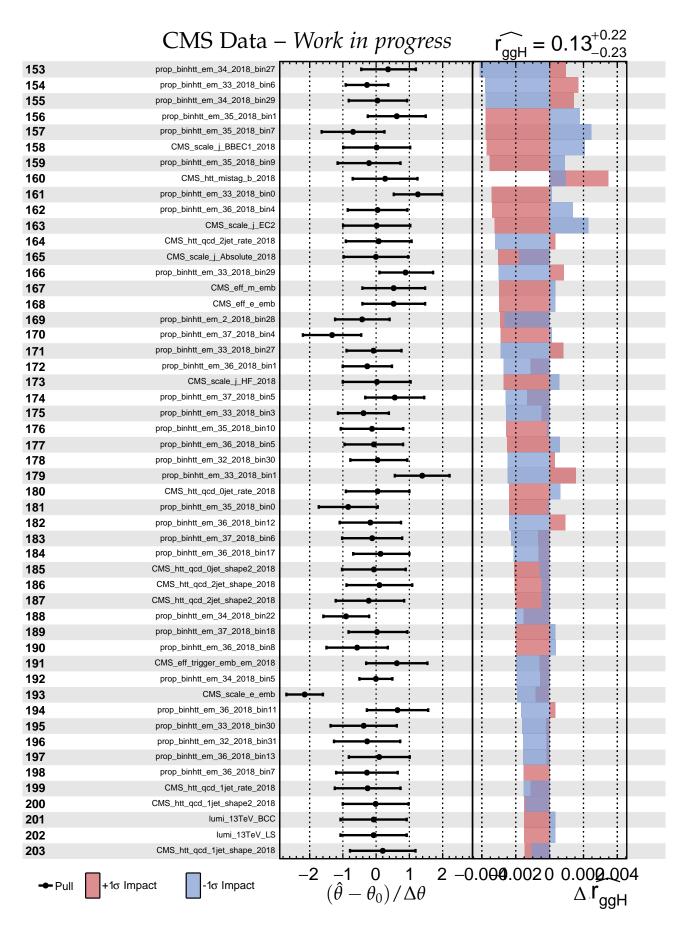
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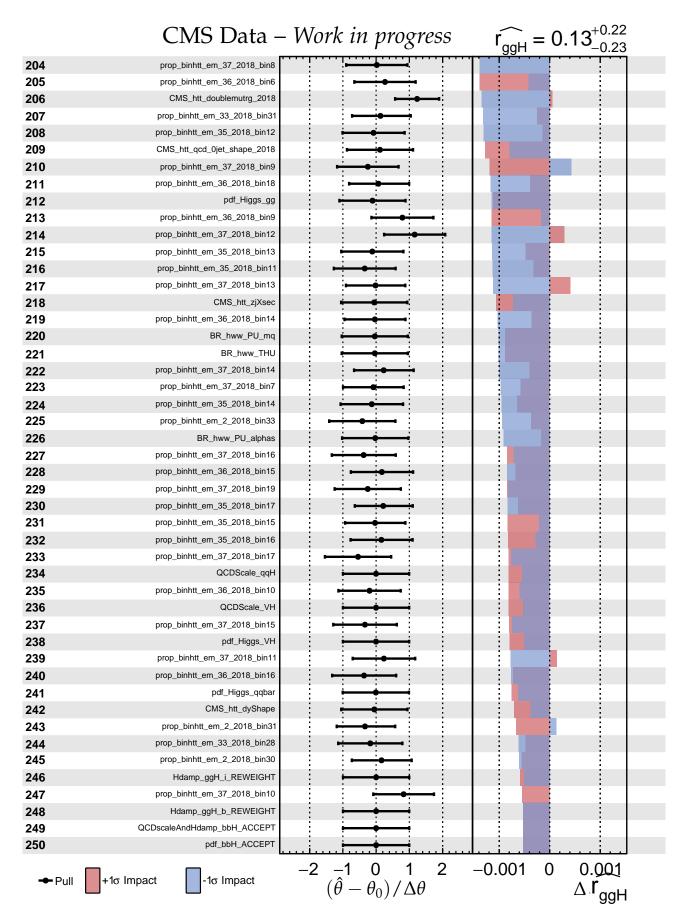
Année 2018, canal  $e\mu$ , page 2/5



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