

Weekly Report

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Overview

- Modified single higgs efficiencies.
- Systematic tool study

Systematic impact on data-driven bkg

Systematics on e/u fake factor

1<=Njet<=2	Sys uncert. on e	Sys uncert. on u
Statistics	4.9%	9.7%
QmisID(stat only)	8.3%	0
Closure test	2.8%	4.1%
Sample dependence	35.8%	38.4%
Total	37.2%	39.8%

Fake factor

$$\theta_e = 0.8698 \pm 0.3233$$

$$\theta_\mu = 2.4388 \pm 0.9709$$

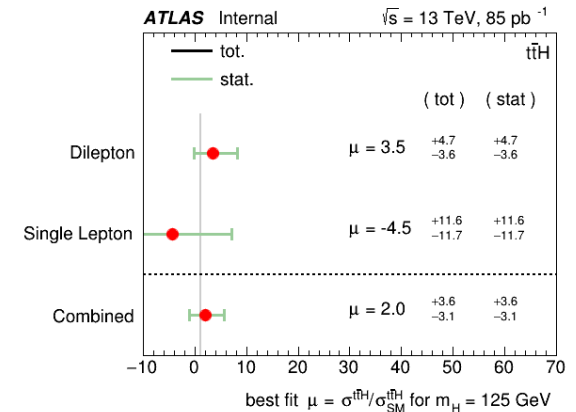
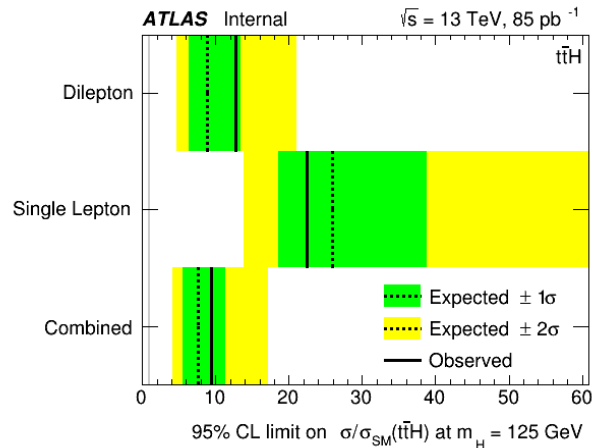
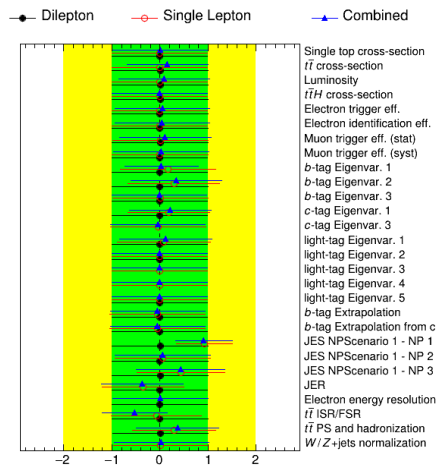
Results in yields

3<=Njet	ee	uu	eu
fakes	84.3 ± 34.1	130.29 ± 37.78	115.3 ± 24.213

Import to TREXFITTER

- Uncertainties are introduced by OverallUp/OverallDown (to be the scale factor)
- Convenient to deal with other nuisance parameters.

A toy model to test code with given config



- Need more understanding in details. Eg, how is the workspace built

What I need

- Various of the systematic variables, the samples are not available now.
- Write down the config file to do the hypo test.