## Weekly Report

## Yu Zhang

IHEP

## February 27, 2017

Yu Zhang (IHEP)

weekly meeting

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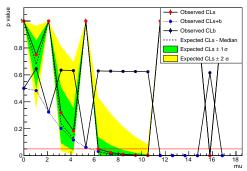
Correlate the systematics

- Lumi
- theoretical uncertainty e.g. QCD scale and PDF
- experimental uncertainty e.g. photon ID and photon ISO
- technically, rename the nuisance parameters to make it consistent in two channels

There are still problems. It is a surprise that the upper limit with correlated sys(rename the nuisance param) is larger than uncorrelated sys(without rename).

(pb)	$m_H = 260 \text{ GeV}$	$m_H = 300 \text{ GeV}$	$m_H = 400 \text{ GeV}$	$m_H = 500 \text{ GeV}$	non-resonant
1lep	11.56	9.92	7.03	6.15	6.41
4jet	131.90	121.44	48.76	18.43	47.33
combined(correlated sys)	12.95	10.61	7.65	8.37	7.17
combined(no correlated sys)	11.55	9.91	6.96	15.73	6.34

Even though asymptotic is used, the shape is very poor...



Asymptotic CL Scan for workspace result\_mu

Image: Image: