

Weekly Report

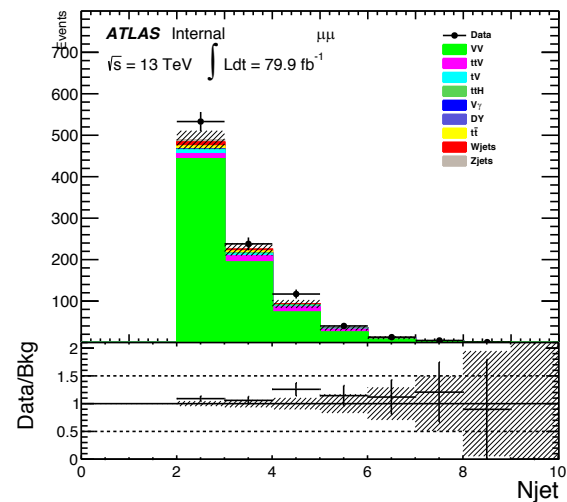
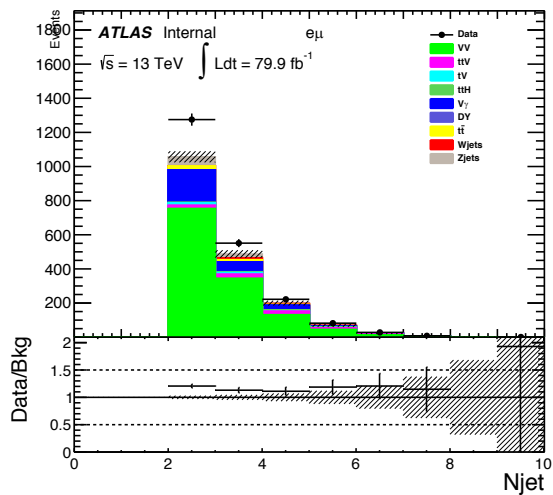
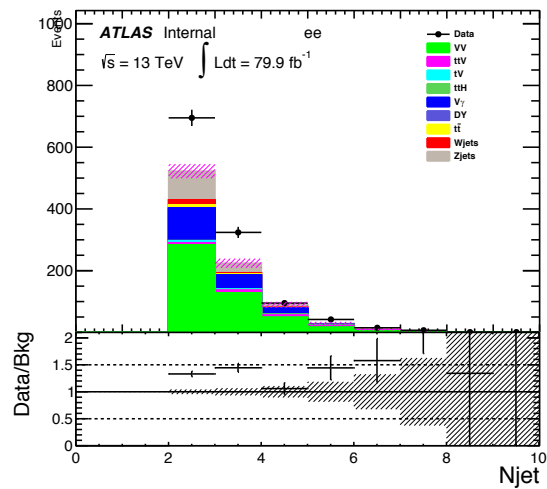
Xin Shuiting

Background estimation on 2LSS

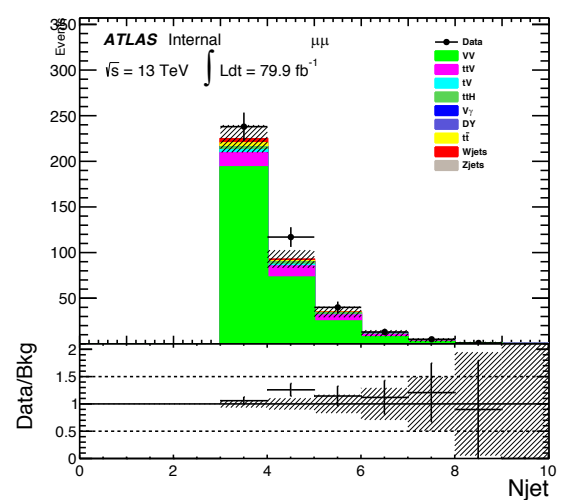
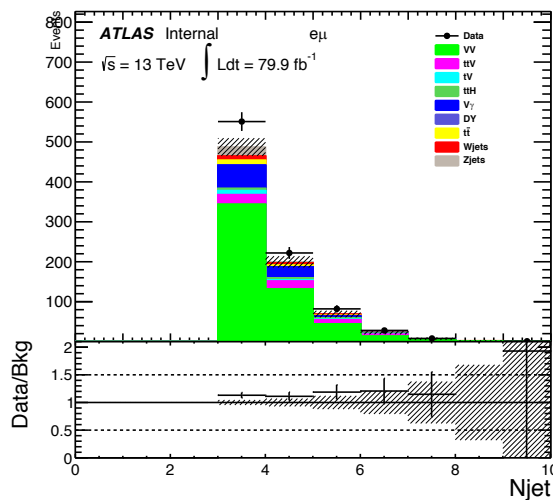
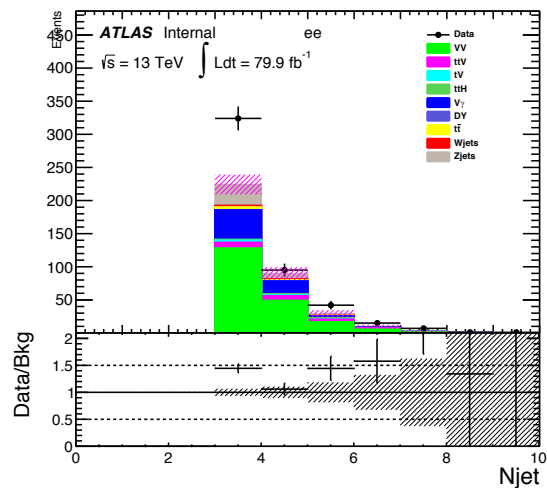
- Fix some bugs of analysis code and job submission
- All issues of new samples were solved as far as I found.
- Results based on official samples

#Njets before applying data-driven methods

Njets>=2



Njets>=3



Fake factor method with PLV cut

Fake factor

	electron	muon
Njets==1 CR	0.4559 ± 0.0218	2.3531 ± 0.2270
$1 < \text{Njets} \leq 2$ CR	0.7381 ± 0.0288	2.4315 ± 0.2347

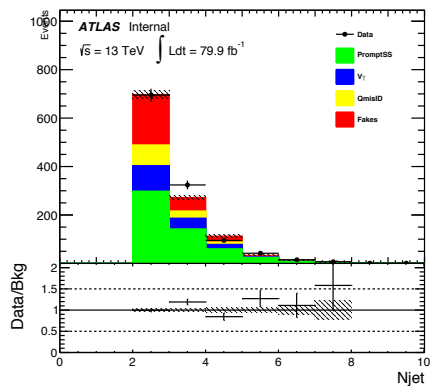
Events yields

Njets>=2	ee	mm	em
Jet fakes	302.32 ± 13.46	184.27 ± 46.73	327.67 ± 27.97
PromptSS	531.03 ± 3.27	821.26 ± 3.78	1421.49 ± 9.53
$V\gamma$	172.48 ± 15.96	0.77 ± 0.67	281.71 ± 18.47
QmisID	127.23 ± 0.59	0.00 ± 0.00	26.30 ± 0.24
Total backgrounds	1133.06 ± 21.14	1006.30 ± 46.88	2057.18 ± 34.85
Observed	1180.00	947.00	2169.00

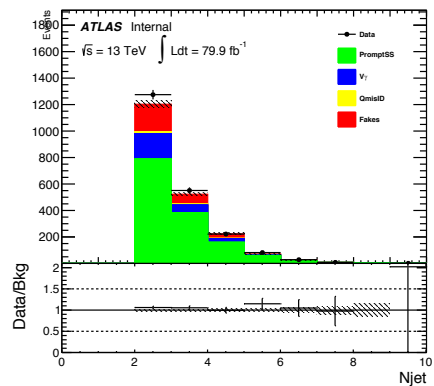
Njets>=3	ee	mm	em
Jet fakes	100.58 ± 9.09	90.43 ± 25.89	125.78 ± 13.46
PromptSS	233.80 ± 1.82	356.15 ± 2.05	632.42 ± 3.13
$V\gamma$	67.03 ± 7.71	0.07 ± 0.07	90.83 ± 8.40
QmisID	42.13 ± 0.37	0.00 ± 0.00	11.45 ± 0.16
Total backgrounds	443.54 ± 12.07	446.66 ± 25.97	860.48 ± 16.17
Observed	485.00	414.00	894.00

#Njets

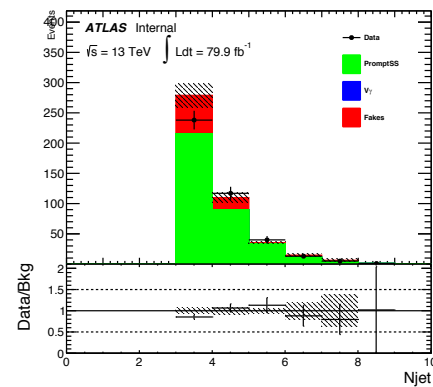
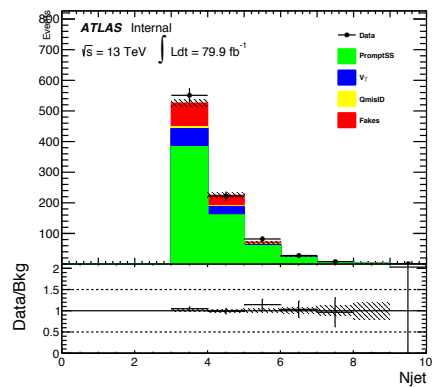
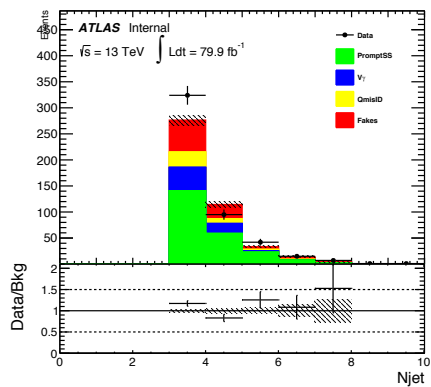
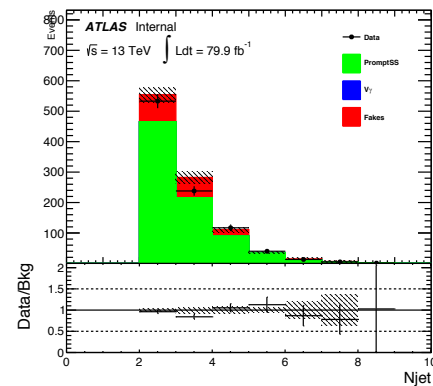
ee



emu



mumu

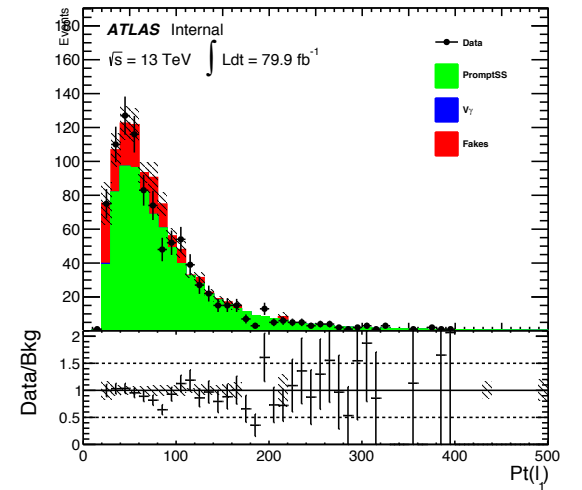
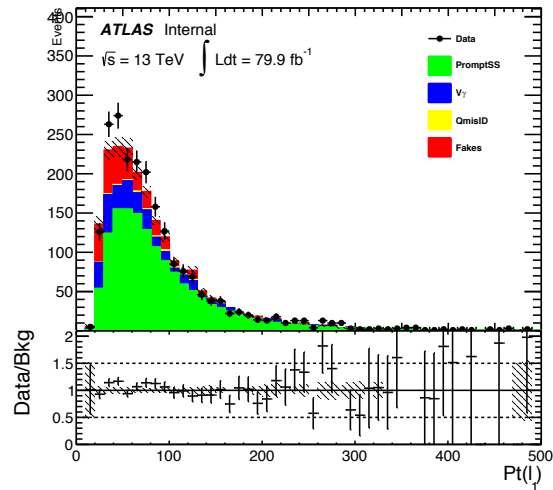
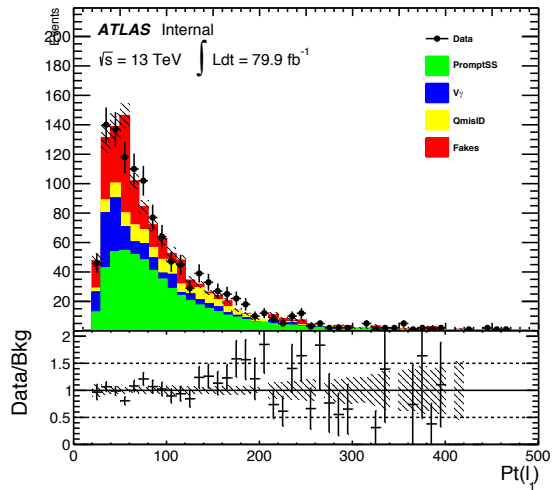
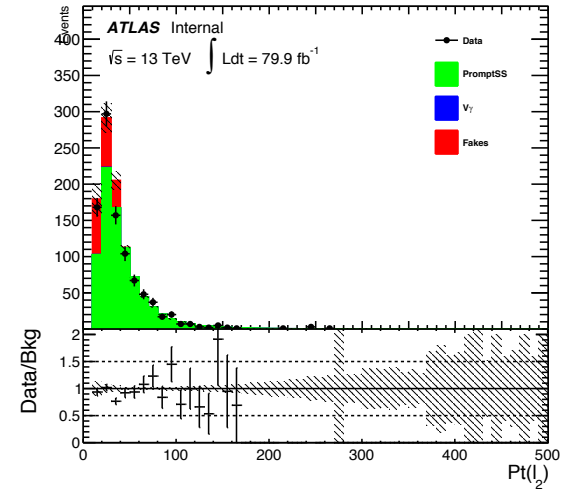
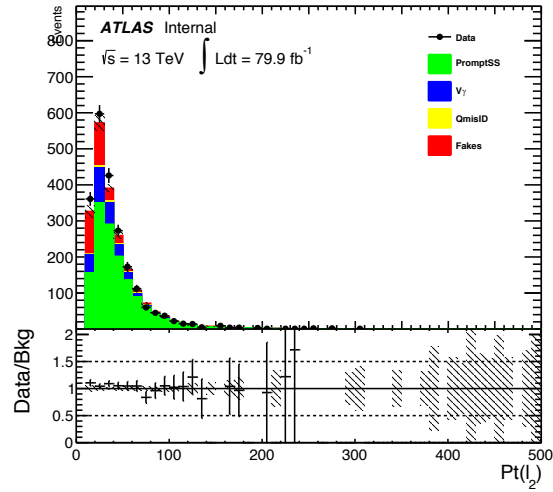
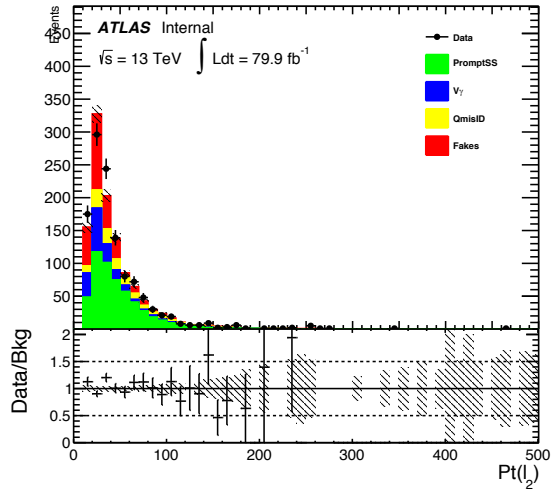


Summary & todos

- Sample validation on $t\bar{t}b\bar{b}$ and Zjets CR.
- Export with new samples.
- QmisID need update with present selection probably.
- ATLAS shift: search for a Chinese guy to be my senior at a proper time zone.

Backup

Njets>=2



Njets $\geq$ 3

