



Weekly

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9 May, 2016

❖ Note writing

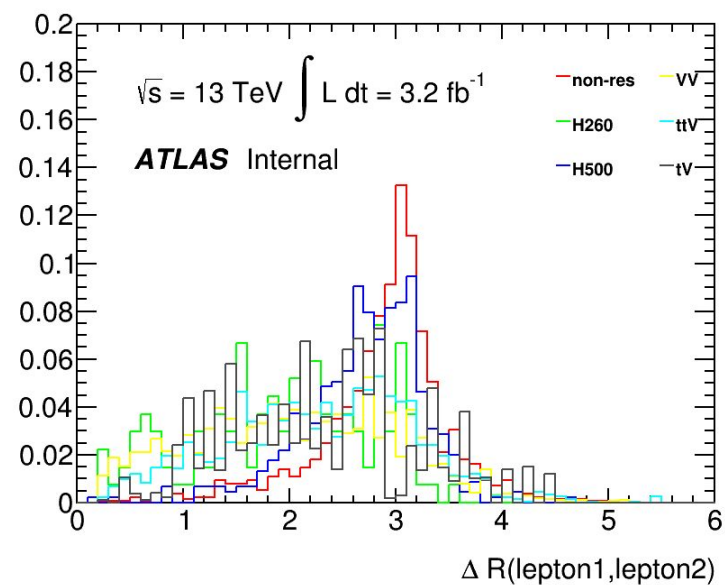
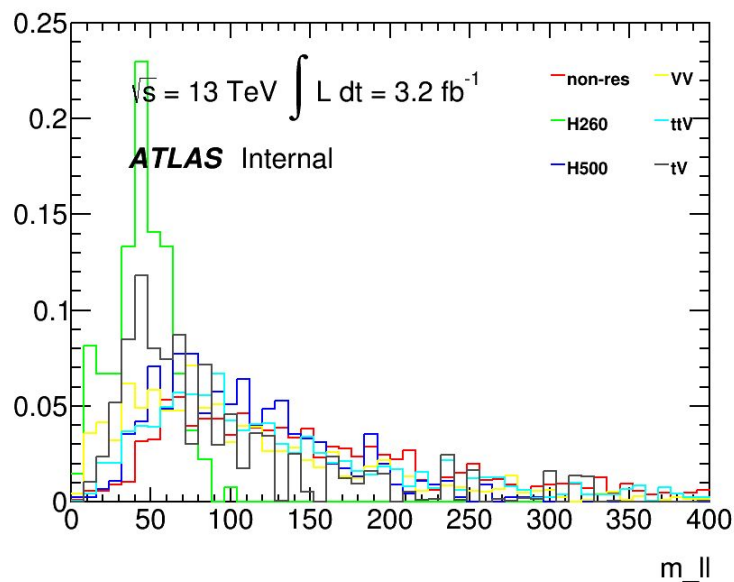
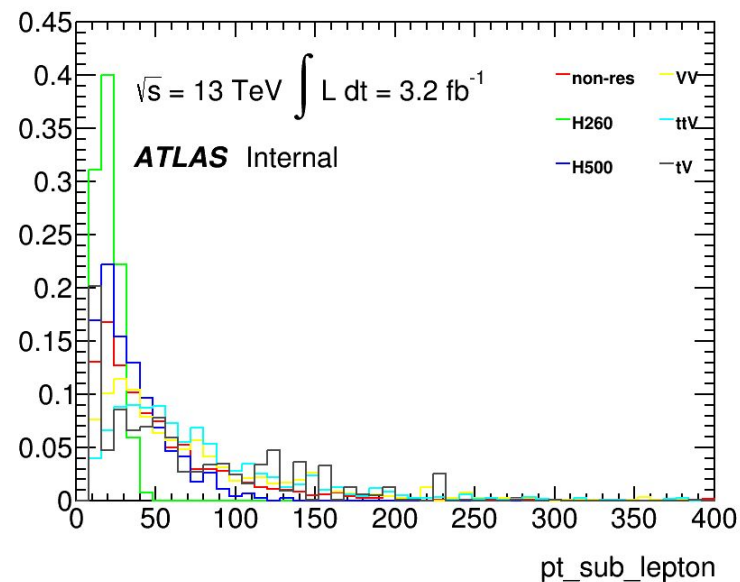
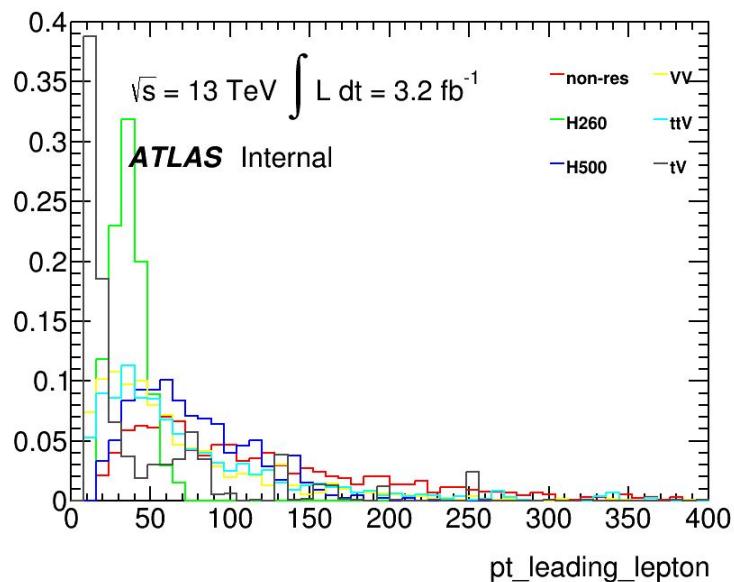
- skeleton done;

❖ Kinematics

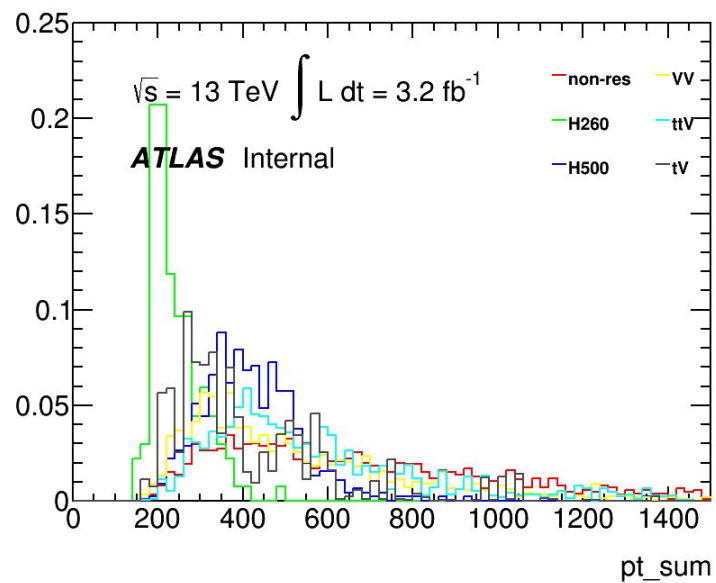
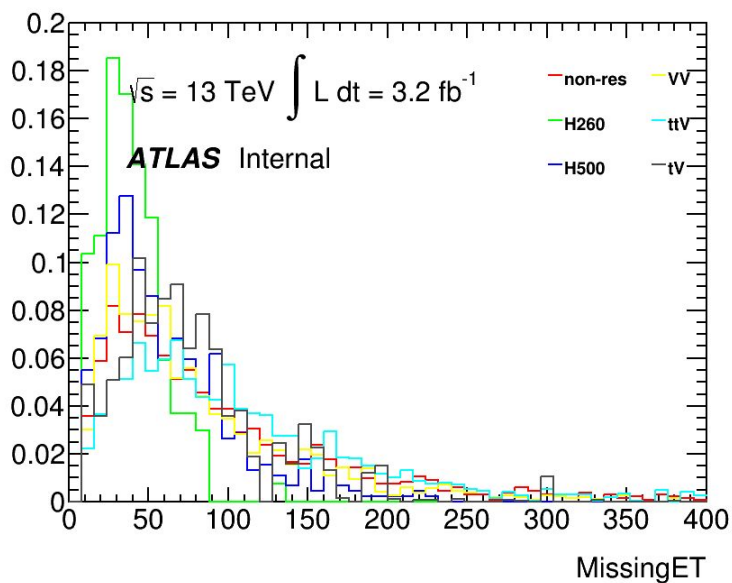
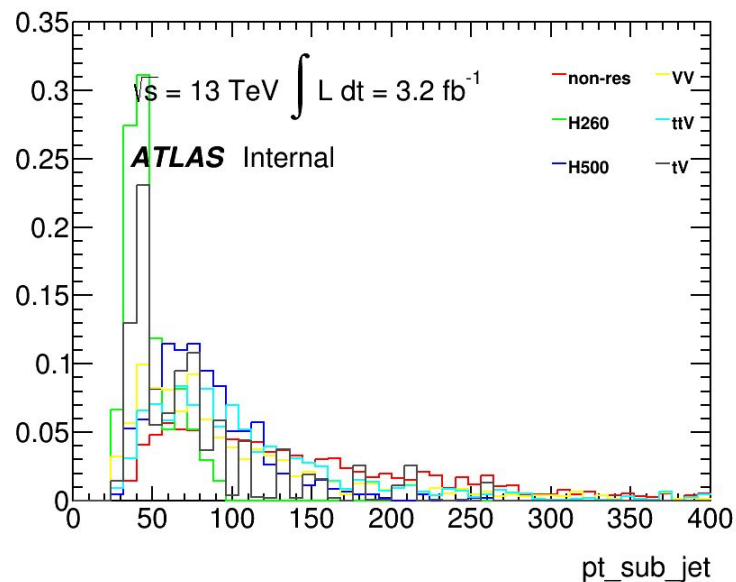
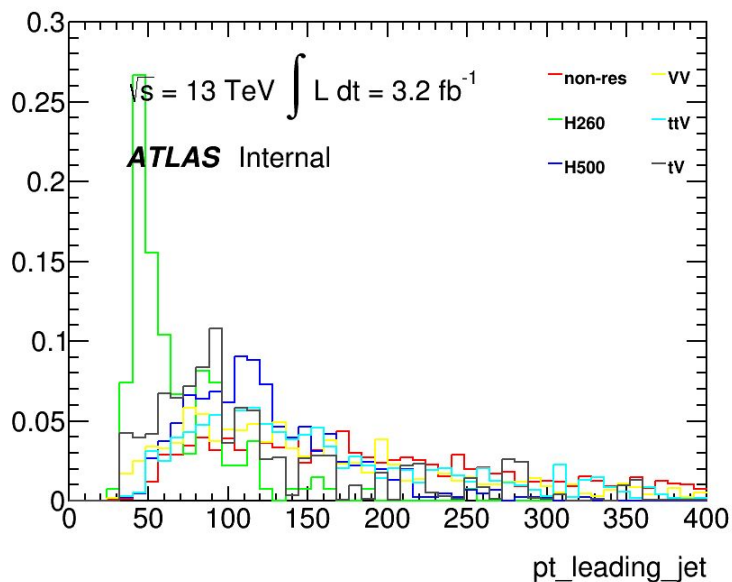
- signal at parton level;
- bkg full simulated;
- cuts: Object definitions and $pT_{l1} > 20\text{GeV}$, SS, ≥ 4 jets

❖ Event yield estimation using truth samples

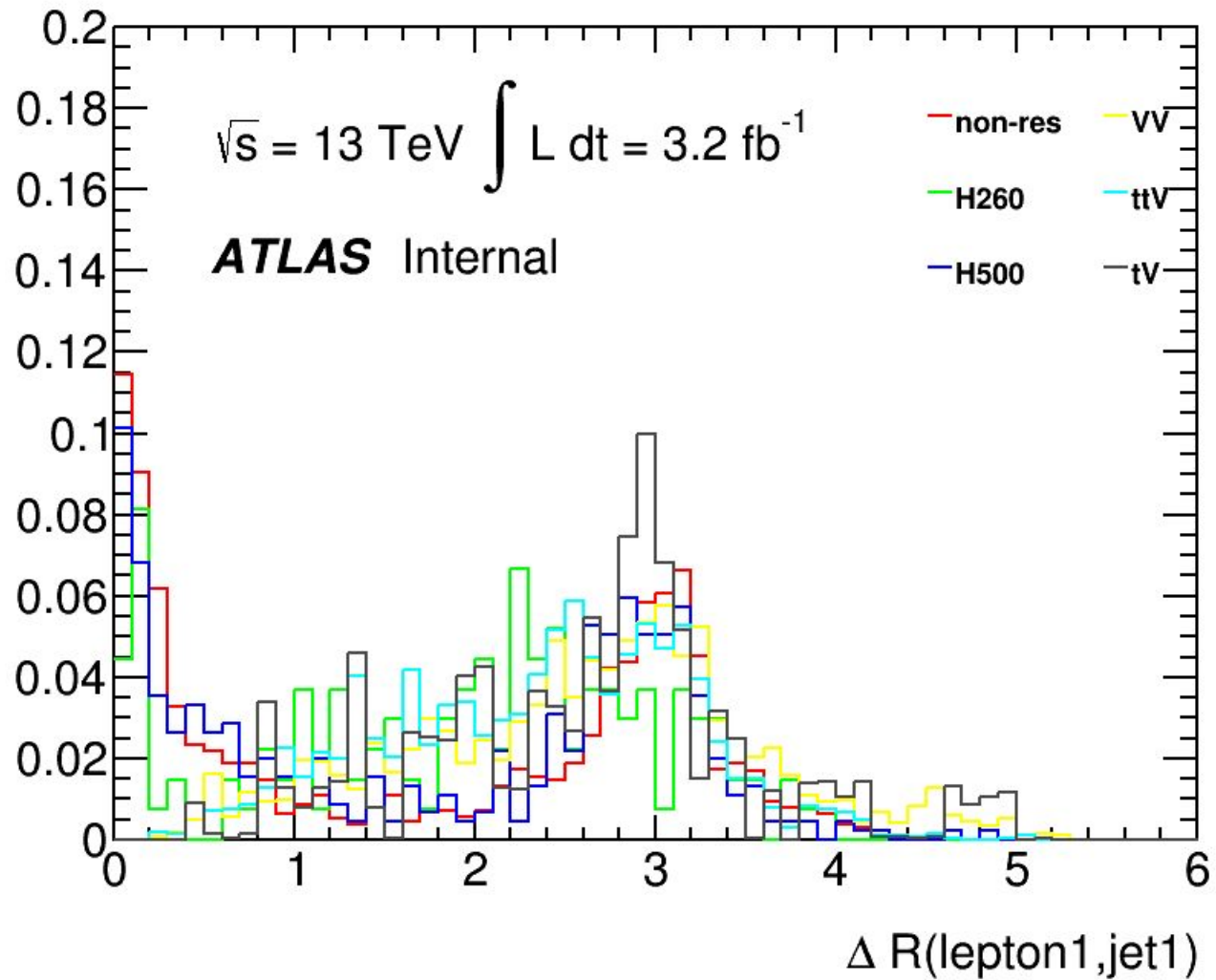
Kinematics-I



Kinematics-II



Kinematics-III



Event Yield @parton level

❖ Assume $\text{xsec}(\text{pp} \rightarrow \text{hh}) = 1\text{pb}$

	non-res	H260	H500	VV	ttV	tV	ttH	jet fakes	Qmis ID
ee	7.64 %(1.13)	2.48 %	6.10 %	1.69	0.17	0.20	0.06	69.42	20.73
mumu	5.74 %(0.85)	0.56 %	4.25 %	1.93	0.19	0.20	0.09	8.73	~
emu	14.06 %(2.08)	3.79 %	12.35 %	3.69	0.32	0.43	0.17	31.81	1.96
sum	4.06			7.31	0.68	0.83	0.32	109.96	22.69

To do list

- ❖ **implement event yield of jets fakes and QmisID;**
- ❖ **Expected limits;**

Back up