

SM Meeting Roundtable

Daniel Werner
Hamburg, 13.05.2025

Event Selection

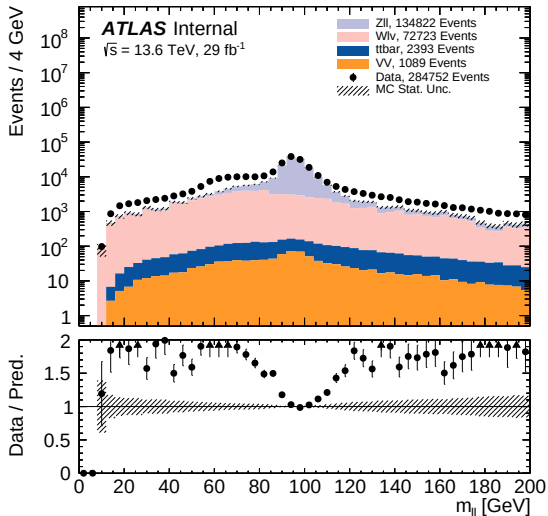
	CR- MisID $e\mu$	CR- QCD $e\tau$	CR- QCD $\mu\tau$	CR- Wjets $e\tau$	CR- Wjets $\mu\tau$	CR- QCD $\tau\tau$
N_ℓ	== 2	== 1	== 1	== 1	== 1	== 0
flavour (ℓ_1/ℓ_2)	e/μ	$e/-$	$\mu/-$	$e/-$	$\mu/-$	
N_τ	== 0	== 1	== 1	== 1	== 1	== 2
OS	False	False	True	True	False	False
$m_T[\text{GeV}]$		< 75	< 75	> 75	> 75	

Info

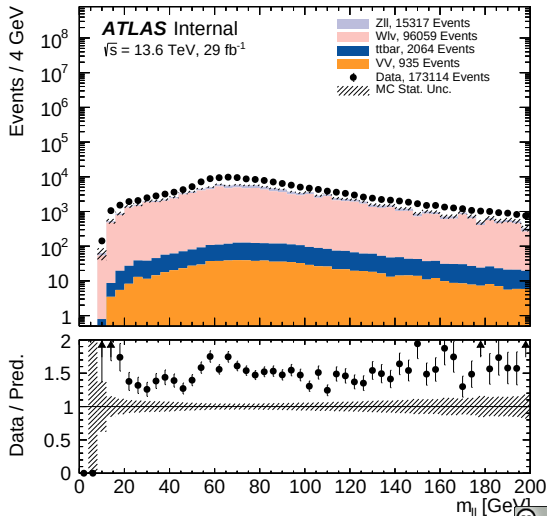
Most regions were previously rejected in the preselection.

QCD $l\tau$ regions

(a) $e\tau$



(b) $\mu\tau$



Thank you for your attention!

Contact

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Backup

MC Samples

Process	DSID	generator	final state	tags*
Drell-Yan	601191	PowHeg, Pythia8, EvtGen	$\tau\tau$	
	601190		$\mu\mu$	r15540
	601189		ee	r15540
$t\bar{t}$	601230	PowHeg, Pythia8, EvtGen	dilep	r15540
$W \rightarrow \ell\nu$	601183	PowHeg, Pythia8, EvtGen	$e^+\nu$	
	601184		$\mu^+\nu$	
	601185		$\tau^+\nu$	
	601186		$e^-\nu$	
	601187		$\mu^-\nu$	
	601188		$\tau^-\nu$	
VV[QCD]	701000	Sherpa2.2.14	$lllljj$	
	701005		$lll\nu jj$	
	701010		$ll\nu\nu jj$ [OS]	
	701015		$ll\nu\nu jj$ [SS]	
	701020		$lllljj$ [Int]	
	701025		$lll\nu jj$ [Int]	

* Default tags are
s4162, r14622, and
p6491 if not specified

MC Samples

* Default tags are
s4162, r14622, and
p6491 if not specified

Info

Samples marked
in **red** were not
available as
DAODs.

Process	DSID	generator	final state	tags*
VV[QCD]	701030	Sherpa2.2.14	<i>llvvjj</i>	[OS,Int]
	701035		<i>llvvjj</i>	[SS,Int]
	701040		<i>llll</i>	
	701045		<i>lllv</i>	
	701050		<i>llvv</i>	[OS]
	701055		<i>llvv</i>	[SS]
	701060		<i>lvvv</i>	
	701065		<i>vvvv</i>	
	701085		<i>ZZ → qqll</i>	
	701090		<i>ZZ → bbll</i>	
	701095		<i>ZZ → qqvv</i>	
	701100		<i>ZZ → bbvv</i>	
	701105		<i>WZ → qqll</i>	
	701110		<i>WZ → qqvv</i>	
	701115		<i>WZ → lvqq</i>	
	701120		<i>WZ → lvbb</i>	
	701125		<i>WW → lvqq</i>	

Triggers and Settings

Single Electron:

- > HLT_e26_lhtight_ivarloose_L1EM22VHI
- > HLT_e60_lhmedium_L1EM22VHI
- > HLT_e140_lhloose_L1EM22VHI

Single Muon:

- > HLT_mu24_ivarmedium_L1MU14FCH
- > HLT_mu50_L1MU14FCH

- > Default Pileup Reweighting
- > GoodRunsList:
data22_13p6TeV.periodAllYear_DetStatus-
v109-pro28-04_MERGED_PHYS_
StandardGRL_All_Good_25ns_ignore_
TRIGLAR.xml , 29 049.3 pb⁻¹
- > Default Overlap Removal

Objects and Preselection

	$\min p_T$	$\max \eta $	$\max d_0 \text{sig}$	$\max z_0$	Working Points	
Electron	25 GeV	2.47	5	0.5 mm	TightLH ID, Tight-VarRad	Isolation
Muon	25 GeV	2.5	3	0.5 mm	Medium Reco quality, PflowLoose-VarRad	Isolation
TauJet	25 GeV	2.5			Medium Reco quality	