

$$**hh \rightarrow WW\gamma\gamma**$$

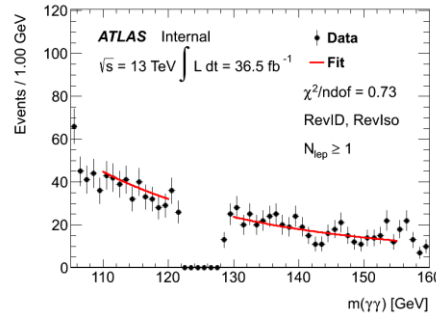
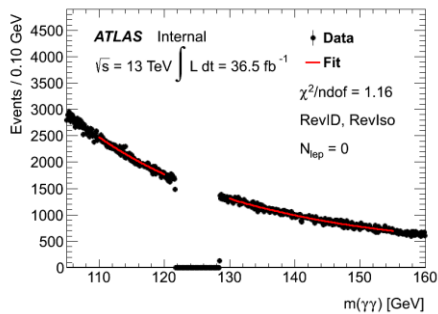
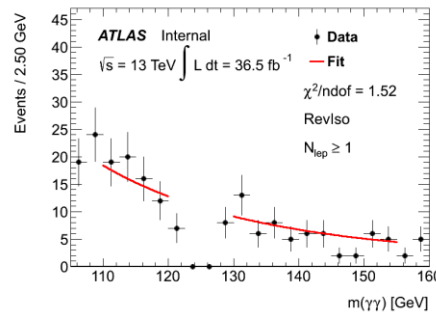
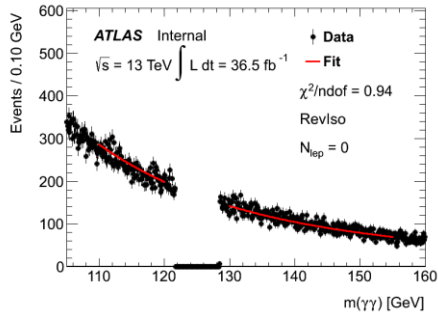
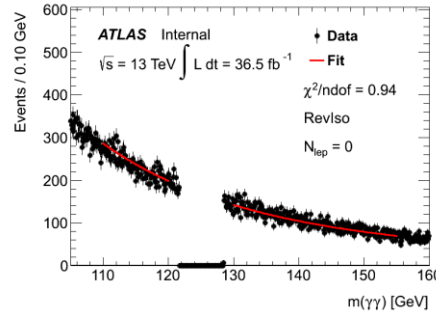
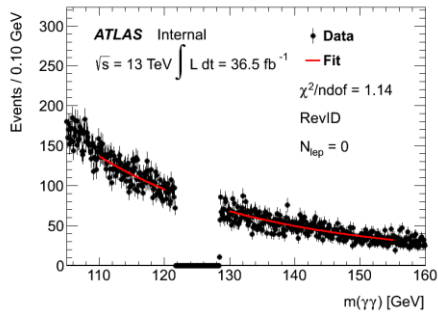
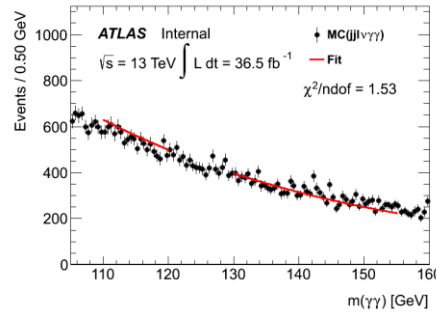
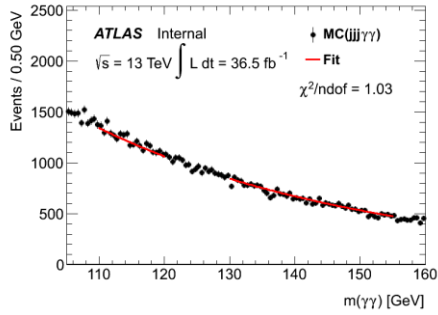
Qi Li

IHEP, Beijing

Monday, May 01, 2017

EFFICIENCY	Mh500 (%)	Mh500 (%)	EFFICIENCY	Mh500 (%)	Mh500 (%)	Mh500 (%)
All Events	100	100	All Events	100	100	100
Duplicate	100	100	Duplicate	100	100	100
GRL	100	100	GRL	100	100	100
Pass Trigger	74.4053	74.4053	Pass Trigger	74.4053	74.4053	74.4053
Detector Quality	74.4053	74.4053	Detector Quality	74.4053	74.4053	74.4053
Has PV	74.4053	74.4053	Has PV	74.4053	74.4053	74.4053
2 loose photons	59.5911	59.5911	2 loose photons	59.5911	59.5911	59.5911
Trigger Match	59.2858	59.2858	Trigger Match	59.2858	59.2858	59.2858
Tight ID	49.5014	49.5014	Tight ID	49.5014	49.5014	49.5014
Isolation	44.9905	44.9905	Isolation	44.9905	44.9905	44.9905
Rel.Pt cuts	41.7591	41.7591	Rel.Pt cuts	41.7591	41.7591	41.7591
$m_{\gamma\gamma} \in [105, 160]$ GeV	41.5555	41.5555	$m_{\gamma\gamma} \in [105, 160]$ GeV	41.5555	41.5555	41.5555
$pT_{\gamma\gamma} > 100$ GeV	-	-	$pT_{\gamma\gamma} > 100$ GeV	-	-	37.8808
Jet event cleaning	-	41.0557	Jet event cleaning	-	41.0557	37.418
At least two central jets	30.7726	30.4169	At least two central jets	30.7726	30.4169	28.151
B-veto	28.8903	28.5514	B-veto	28.8903	28.5514	26.3934
At least 1 lepton	11.2776	11.162	1 lepton	11.2695	11.1539	10.3307

CUTFLOW	Data	CUTFLOW	Data	Data
All Events		All Events		
Duplicate		Duplicate		
GRL		GRL		
Pass Trigger		Pass Trigger		
Detector Quality		Detector Quality		
Has PV		Has PV		
2 loose photons		2 loose photons		
Trigger Match		Trigger Match		
Tight ID		Tight ID		
Isolation		Isolation		
Rel.Pt cuts		Rel.Pt cuts		
$m_{\gamma\gamma} \in [105, 160]$ GeV	332895	$m_{\gamma\gamma} \in [105, 160]$ GeV	332895	332895
$pT_{\gamma\gamma} > 100$ GeV	-	$pT_{\gamma\gamma} > 100$ GeV	-	-
Jet event cleaning	-	Jet event cleaning	-	332018
At least two central jets	59238	At least two central jets	59238	59099
B-veto	54884	B-veto	54884	54753
At least 1 lepton	165	1 lepton	157	156
Tight mass window	33	Tight mass window	31	31



The fit ranges [110,120] & [130,155] GeV

All the numbers of $\chi^2/ndof$ look reasonable.

Previously, The fit ranges [105,120] & [130,160] GeV

END